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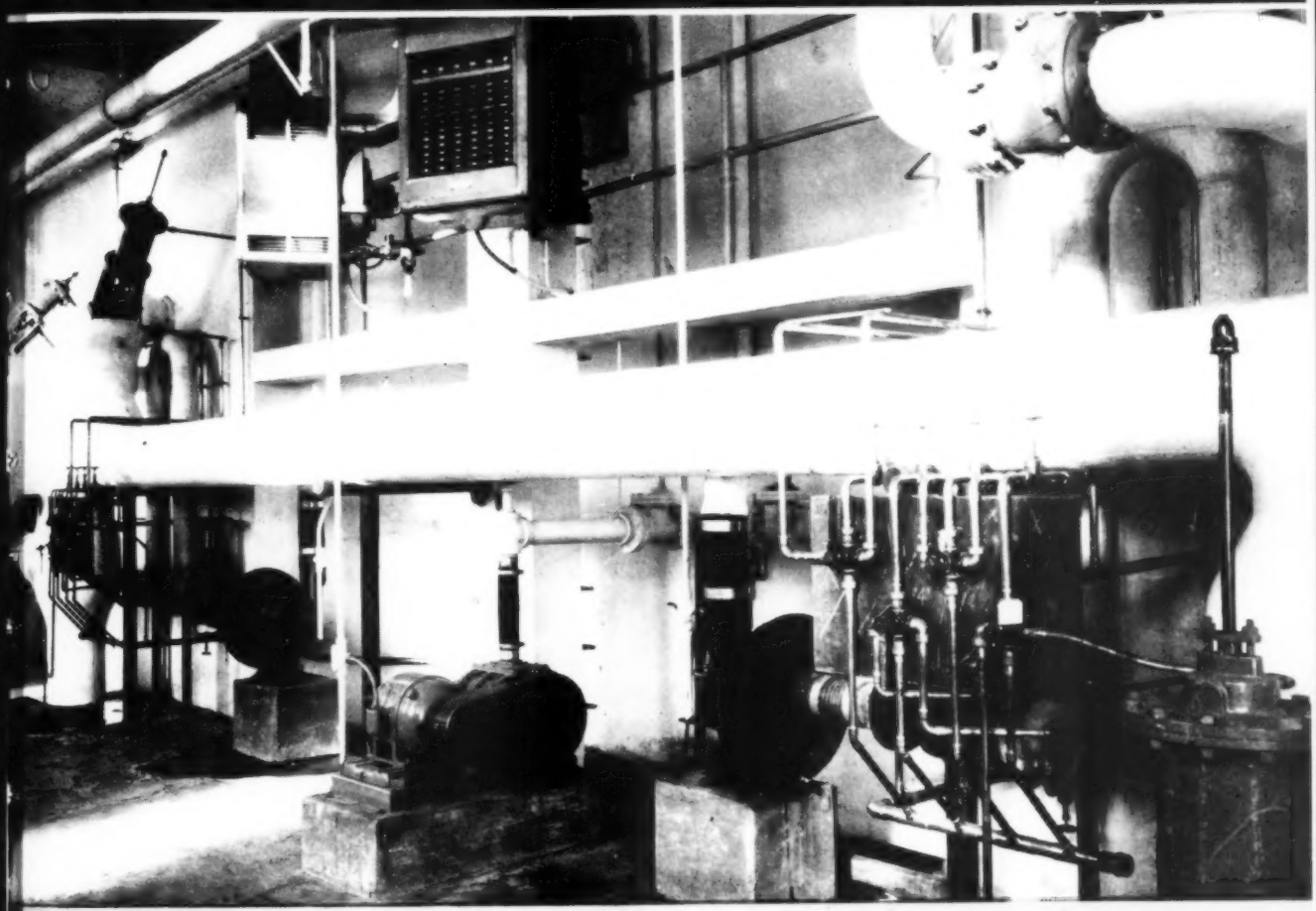
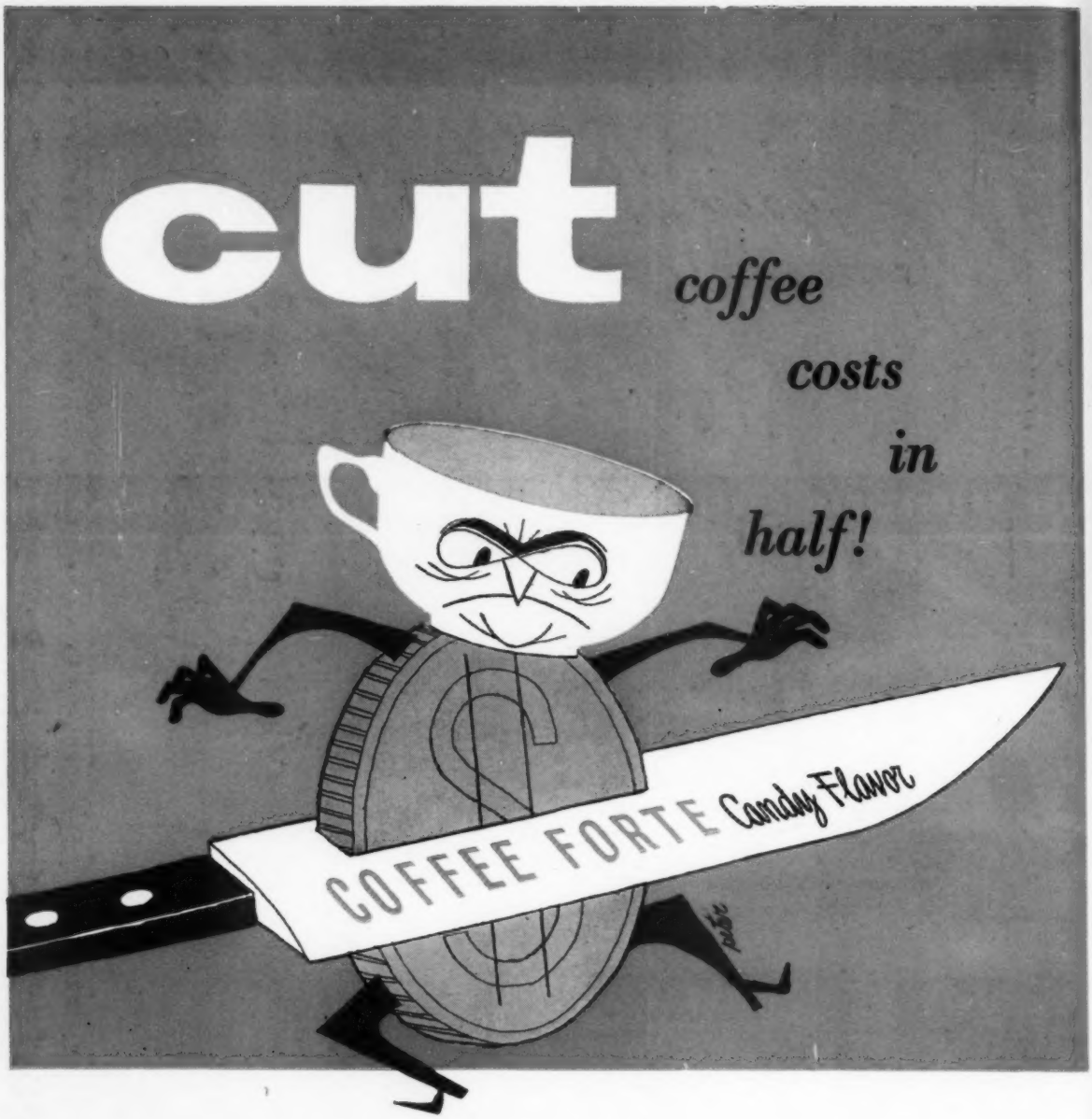
ONEER SPECIALIZED PUBLICATION FOR CONFECTIONERY MANUFACTURERS



APRIL 1952

Bon Bons: The "Dress-Up" Candy
Testing Panel Procedures
Packaging to Quartermaster Specifications and Why



This headline is not just a trick claim to induce you to read further. It's a proved fact . . . *proved day-in and day-out by candy manufacturers everywhere!* COFFEE FORTE actually cuts coffee costs in half, yet gives candies a rich, cup-of-coffee *aroma,* as well as the full-bodied *flavor* that creates repeat sales! *You save 50% because* COFFEE FORTE *is double-strength!* You'd actually need twice as much pure dry instantly soluble coffee to build up the same degree of flavor. *Yet* COFFEE FORTE costs no more! Write, wire, phone . . . we'll tell you all about it!

AMERICAN FOOD FLAVORS
For Cream Centers
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VANILLA EXTRACTS
(Pure & Concentrated)
FRUIT FLAVORS
COFFEE FORTE

AMERICAN FOOD LABORATORIES, INC.

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Aesthetic... Yes!

BUT TECHNICALLY RIGHT TOO

The peak in flavor perfection! . . . . . Yet Alva flavors are soundly designed by an organization of capable food chemists whose knowledge, experience and facilities are unmatched. An Alva flavor is perfection in flavor and technically right in the product for which it is recommended.

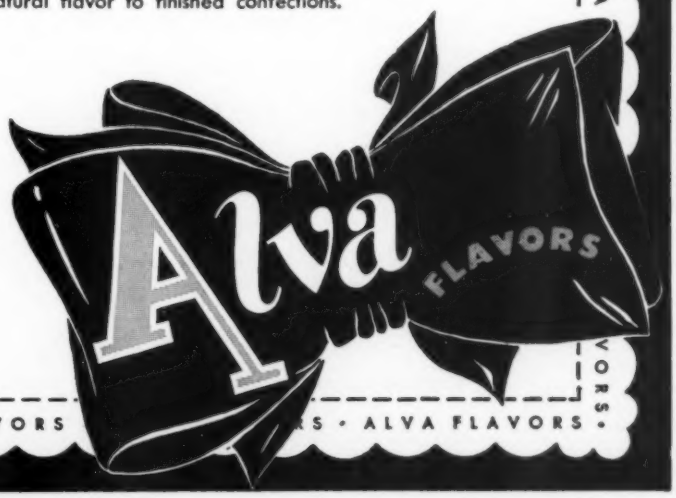
You should examine the new

LEMON — LIME — ORANGE

imitation confectionery flavors developed from new materials that are remarkable for imparting superbly natural flavor to finished confections.

Write for the big complete ALVA catalog and see ALVA Flavors' complete line in every quality, strength and price class.

VAN AMERINGEN-HAEBLER, INC.
521 WEST 57th STREET
NEW YORK 19, N. Y.



• ALVA FLAVORS • ALVA FLAVORS • ALVA FLAVORS •

GOT SOMETHING GOOD FOR US?....

You betcha we have! Something you'll love, too.
Wanta know what it is? Well . . . it's FLAVOR! Yep . . .
strawberry, raspberry, grape . . . cherry, peach, pineapple . . .
orange, lemon, lime—in fact, every good flavor
you can think of . . . flavors that help to make those
candies you love so much, so much tastier . . . so much
more appealing. And being a BIG flavor house,
with facilities and experience to do the job just right, we've
gone all the way in perfecting our line, — not merely one or two
specialties, but a full selection of the finest flavors
ever made. So, if it's something really good
you want in flavors, at a price you
can afford to pay, come to FRITZSCHE. . . .
A FIRST NAME IN FLAVORS SINCE 1871.

Let our catalog acquaint you with the wide variety of flavors we offer. Write for a copy of FLAVORS by FRITZSCHE . . . today.

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Brothers, Inc.

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Edited and Published
in Chicago
The Candy Manufacturing Center of the World

The Manufacturing Confectioner

READ WHEREVER CANDY IS MADE

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Vol. XXXII **No. 4**

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COVER: Header Pipe & Equipment for Sunshine's Water Filtering Plant.

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SUGAR!

Customer-Winner . . . and Keeper!

Because sugar has always been associated with top quality in the public mind, candy made with sugar helps you win *new* customers, keep *old* customers, please *all* customers!

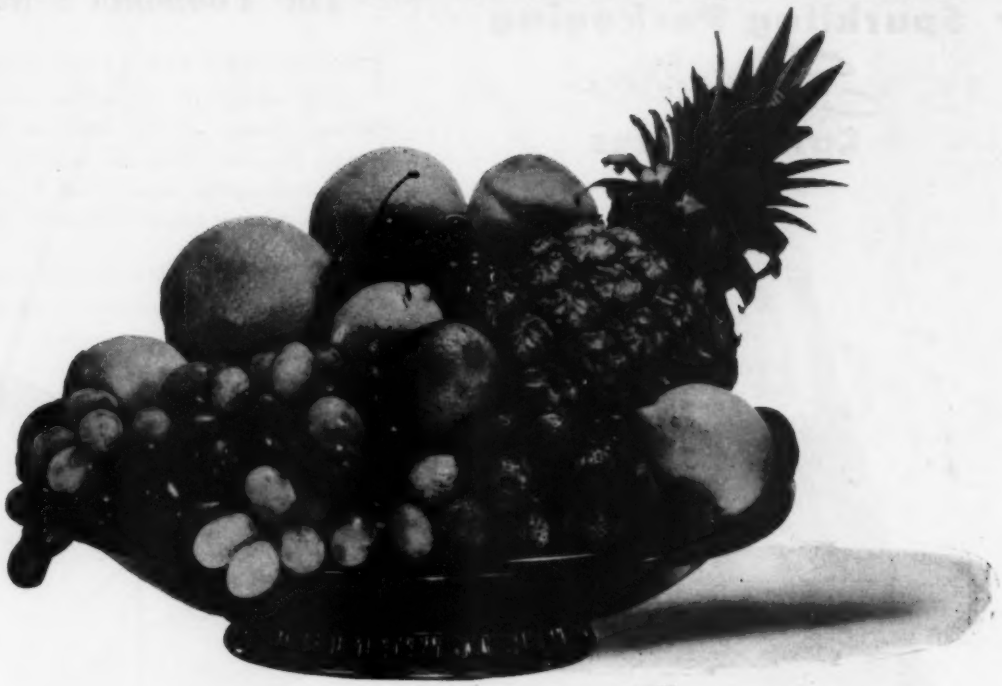
That's why sugar—Nature's No. 1 sweetening agent—should be *your* No. 1 choice for making candy of superior quality.

Sugar is economical. It gives you 10 to 50% more sweetening power. Sugar is easier to use. It requires no special handling or storage facilities.

For candy of *quality* always use *sugar,* for sugar points up the quality that rings up the sale!

SUGAR
INFORMATION
INC.
NEW YORK 5, NEW YORK

THE LAST WORD...IN FINE IMITATION FRUIT FLAVORS



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A NEW NAME FOR A NEW LINE, BACKED BY AN OLD NAME FOR QUALITY...

KOHNSTAMM

Your candy, especially your fondants and fillers, never had a finer ally for natural fruit flavor than you'll find in this brand new Trubase line.

With a *major base* in true fruit flavors *fortified* with expertly blended synthetics to insure lasting, natural taste and aroma, Trubase is another triumph in flavor chemistry by Kohnstamm's famous laboratories.

Why not place a trial order for Trubase now...on a money-back-if-not-happy basis, of course. You'll find Trubase gives you perfect working qualities, plus a new, natural characteristic in your finished confection that will build solid repeat sales for you.

Write, wire or phone our nearest headquarters today.

Raspberry · Strawberry · Pineapple
Cherry · Apricot and many others

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FIRST PRODUCERS OF CERTIFIED COLORS

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Sparkling Packaging
Sweetens
Candy Sales

making things *Crystal* clear!

Mouthwatering—that's the way candy should look! . . . that's the way it *always* looks in sparkling Crystal Tube packages! Crystal Tube's experience, modern methods and known reliability are the sales-making combination for putting eye-and-buy appeal in your candy products. To show your candy at its best—call Crystal Tube today for friendly assistance on your packaging needs. Our ideas and packaging know-how are always available.

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The Publisher's Notebook

ERNEST C. CROCKER, the man with the "million dollar nose," so says the SatEvePost, gave a talk before the Chicago Chapter of the American Chemical Society. Among the many things he said was that flavor is far more physiological than logical. Something to ponder in the making of candies with mass appeal.

BEST WISHES AND CONGRATULATIONS to Tom Henry, a well known name to the oldsters in the industry. His home town paper in Little Rock has just carried a feature story about Mr. Henry. Tom Henry's business has been candy since he was ten years old, and for sixty years it has been his hobby and business. "The Mousetrap" is his famous confection, made and sold on the Little Rock-Benton Highway. He does what many dream about but seldom achieve—closes up shop in the summer and takes off for the wide open spaces.

MANY firms are celebrating anniversaries. Wayne Candies have just announced their 50th Anniversary in an attractive brochure. From horse and buggy days to a modern plant is the success story of this firm. They attribute their success to the loyalty of their employees, their customers and the land of opportunity in which Americans live and work. May they continue in the years ahead to build quality confections in a free economy.

"THE LONG GREEN" article in the January issue of MC started something. Our patient technical editor has been running down patents, formulae and other data about chlorophyll ever since. Every time we run an article done on research by our staff or assigned writers, it means more and more work, but we like it. "*Service to the Industry*" has been our slogan ever since MC came into being.

polak's frut
al works po
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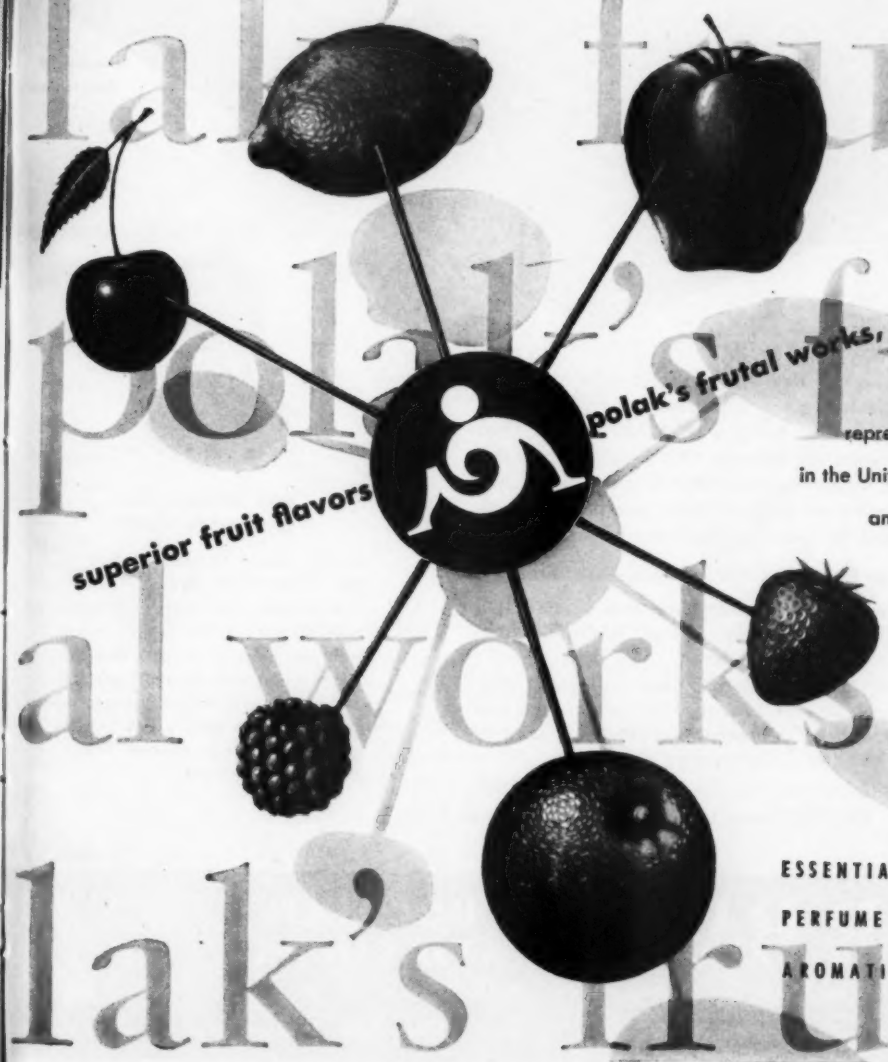


superior fruit flavors

polak's frutal works, middletown, n. y.

represented in all principal cities
in the United States
and throughout the world

ESSENTIAL OILS
PERFUME BASES
AROMATIC CHEMICALS

Now you can prove these are the better

MILK COATINGS

Products of General Foods

Nobody knows better than you do what constitutes the very finest milk coatings your candies can have, appearance-wise, flavor-wise, and otherwise! Now we want to *prove* why Walter Baker's High-Grade Milk Coatings are definitely superior. One sampling and you'll surely agree: "Only the industry's most modern milk plant, only America's most *experienced* chocolate-makers can produce milk chocolate *this* good!" Send for *your* sample today, choosing from:

A Complete Range in Flavors, Colors, Prices — Including:

***MASTERPIECE Milk Coating** — the supreme milk chocolate! Luxurious milk flavor . . . rich, mellow, smooth . . . for the connoisseur!

***MAYFLOWER Milk Coating** — exceptionally light color for maximum contrast . . . rich, well-blended bouquet.

***BOURNEDALE Milk Coating** — full velvety texture, distinctive fresh milk flavor.

AND . . . other high-grade Milk Coatings, Vanilla Coatings and Chocolate Liquors for your every confectionery requirement!

**Samples on request.*

. . . "And Sample This Unusual Service!"

invites Harry Thomas of Boston, one of the Walter Baker Chocolate Consultants who serve America's confectionery industry with expert technical help in the selection and use of high-grade chocolate coatings and liquors. (31 experience-packed years back his offer!) For helpful service, see *your* nearest Walter Baker representative!

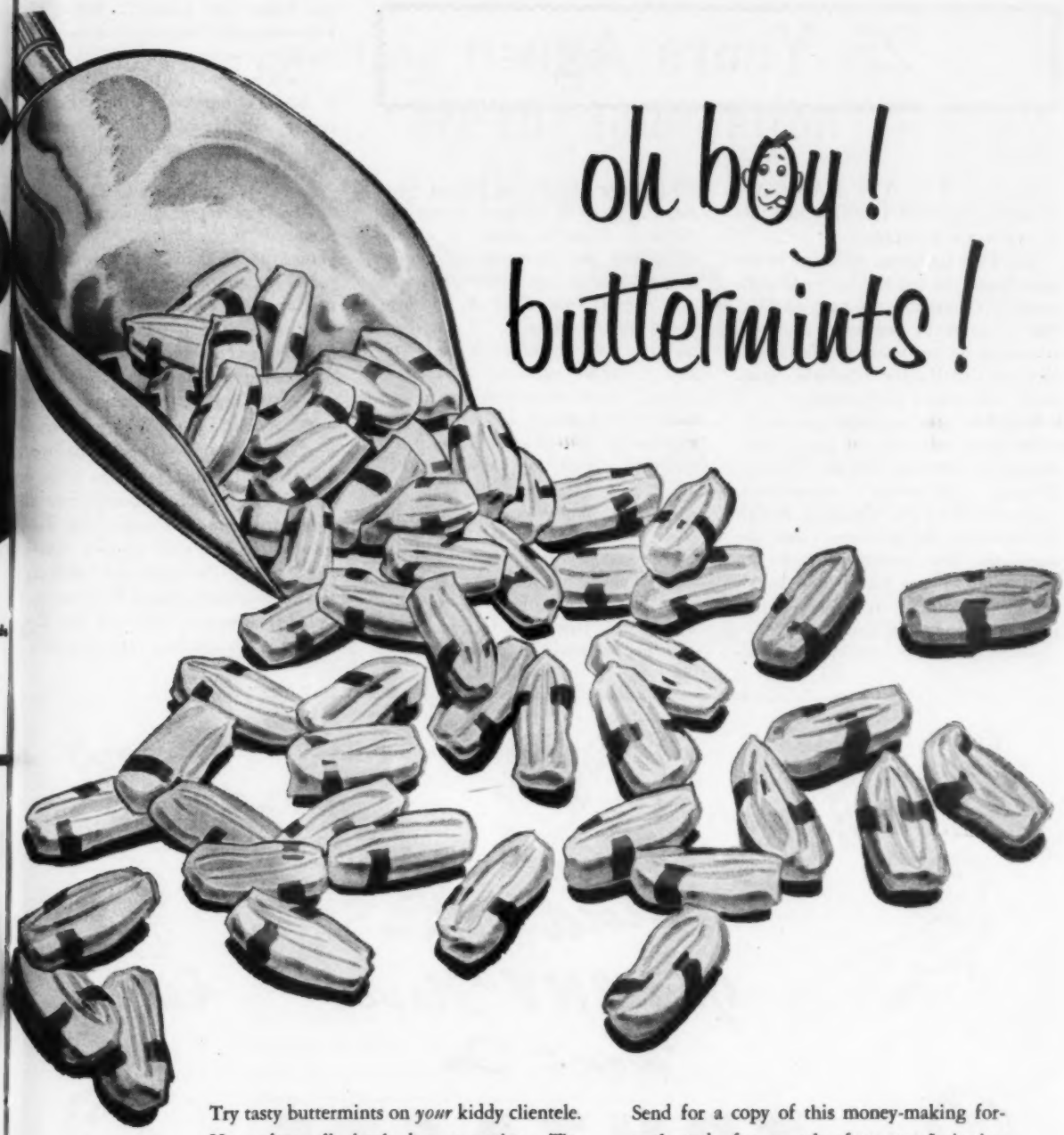
The First Name in Chocolate . . . The Finest Name in Service

WALTER BAKER CHOCOLATE AND COCOA

1780

Division of General Foods Corporation, Dorchester 24, Mass.

Sales offices in Chicago, Cleveland, Detroit, Los Angeles, New York, Philadelphia. Brokers in all principal cities.



Try tasty buttermints on *your* kiddy clientele. Hot cakes sell slowly by comparison. The secret of their "I want-another-piece" flavor is MAGNA Imitation Butterscotch Flavor No. 4 and Mohawk Peppermint Oil, a tempting blend of butter and peppermint flavors.

Send for a copy of this money-making formula *and* a free sample of MAGNA Imitation Butterscotch Flavor No. 4 and Mohawk Peppermint Oil. Ask for information and prices on the 25 other MAGNA flavors — all premium quality, all modest in cost.

Magnus, Mabee & Reynard, inc.

Since 1895 **ONE OF THE WORLD'S GREATEST SUPPLIERS OF ESSENTIAL OILS**

16 Desbrosses Street, New York 13, N. Y. • 221 North La Salle Street, Chicago 1, Illinois

25 Years Ago

In April, 1927, THE MANUFACTURING CONFECTIONER had this to say to the Industry:

The 69th Congress included in the appropriations for the U. S. Department of Commerce the sum of $10,000 to cover the expenses of a national survey to determine facts concerning distributive channels, practices, and vogue preferences.

With this issue we began our steady editorial sponsorship of good plant sanitation methods, and the "Quality Through Sanitation" department, conducted by The Industrial Health Conservancy Laboratories was inaugurated. The invitation to join the Sanitation Forum was issued to all readers in order to promote this important and vital work.

Research was announced on metallic cooking utensils at Mellon Institute . . . Herman Lebeson, Consulting Chemist, began a series of articles discussing the chemistry of confectionery and its raw material content . . . Factors controlling the uniformity of marshmallows . . . Casual commenting on current candy advertising . . . Our editorial "The Silver Lining" urges manufacturers to consider the advantages of stopping long enough to take stock of conditions, effecting economies through legitimate and intelligent substitutions, competent plant engineering, and combined or centralized purchasing.

National Equipment advertised the Springfield Continuous Cooker which "cooks at a cost of $.0015 per lb." and Emil J. Brach, confectionery machinery, featured the "Brach Continuous Cutter and Cooler". While The International Company announced in another advertisement that "the name . . . will be changed to The C. M. Pitt & Sons Company", Union Confectionery and Machinery Co. advertised "all machinery and equipment of Floyd-Paramount Co.—Newark, N.J.

The Department of Commerce announced "that . . . for 1925 products valued at $380,761" were manufactured by confectioners. This was a rise of 4 per cent over 1923. Chocolates accounted for $102,790,000 of the total; bar goods, $63,515,000; hard candy, $31,702,000; and pan work, $8,973,000. The report showed 1,928 establishments with an average of 63,596 wage earners employed. That was 86 less factories than in 1923, but 111 more employees. In value of product by state, New York headed the list, with Illinois, Massachusetts and Pennsylvania following, but Pennsylvania placed with the most establishments, followed by New York, California and Massachusetts.

Exciting flavors are the foundation for exciting sales

DOGEN Genuine Fruit Extracts
All the rich, full flavor of the natural fruit in highly concentrated form. Processed from finest, selected fruits . . . always uniform in flavor, quality and strength.

DOLCO® 5200 Flavor Line
D&O improves on nature with these highly concentrated, top-notch imitations of natural fruit flavors available in 20 popular flavors. All color derived from the natural fruit.

DOSIX® Flavors
True fruit flavors, reinforced with other natural flavors. Particularly useful for fountain syrups, pectin jellies, cream centers, icings and ice cream.

DOLCOTT® Hard Candy Flavors
Natural extractives fortified with synthetic aromatics, especially useful where very high temperatures are employed.

MICROMUL Flavors
Especially designed for flavor manufacturers of all types of household and bottlers' flavors and concentrates.

AP-RO-PO Flavors
For the hard candy manufacturer who requires realistic flavors at low cost.

Excellent selection in all Flavor Lines. Ask for Bulletins or new Flavor Catalog.

D&O **DODGE & OLCOTT, INC.**
180 Varick Street • New York 14, N. Y.
SALES OFFICES IN PRINCIPAL CITIES
ESSENTIAL OILS • AROMATIC CHEMICALS • PERFUME BASES • FLAVOR BASES • VANILLA

When you use General Mills B-2455 Wheat Starch the response is sure to be—

GOODY gum drops!

Clear, tender, melt-in-the-mouth qualities—every batch—that's the promise General Mills B-2455 makes your gum candies! It's all because B-2455—a *wheat* starch—has no cereal taste or odor to mask flavor, and has a higher water absorption and retention capacity to keep your gum candies looking better—tasting better—longer!

Satisfied users of B-2455 report these other important advantages, too:

- **Increased yields up to 3%**
- **Longer shelf life**
- **No sweat tendency**
- **Reduced need of flavoring materials**

B-2455 is a chemically modified and highly purified *thin-boiling* starch—produced under General Mills' exacting product and laboratory controls.

For caramels and nougats—we recommend *thick-boiling* PAYGEL—another General Mills wheat starch that gives you superior products!

Free samples of B-2455 and Paygel wheat starches are available without obligation. We invite you to write, wire or phone—

General Mills, Inc.

Special Commodities Division

400 2nd Ave. So. Minneapolis 1, Minnesota
80 Broad St. New York 4, N.Y.
208 So. LaSalle St. Chicago 4, Illinois

Confectioners' Briefs

• **The Shotwell Manufacturing Co.,** of Chicago announces the appointment of ROBERT I. JOHONNOT as Merchandising Director. Mr. Johonnot, who is a well known candy merchandising executive, will devote his time to the promotion of Shotwell's Puritan Marshmallows and their entire line of fine candies.

According to Director of Sales, Thomas F. O'Rourke, Shotwell is planning an extensive merchandising program, to be announced in the near future.

• **William Wrigley Jr. Co.,** according to Philip K. Wrigley, president, is not exempt from earnings problems under current tax and other expenses. The company reported that 1951 sales set a new record of $73,589,791, but that net earnings amounted to only $9,367,832, or $4.76 per share. For the year 1950 sales were $72,154,132, net earnings $12,035,731, or $6.11 per share.

Mr. Wrigley advised the shareholders that the decline in earnings was due to a $1,513,863 increase in the cost of materials, labor, freight, and other expenses, and a $1,154,036 increase in income taxes. He was pessimistic concerning the 1952 tax outlook, inasmuch as the higher tax rates are expected to take an additional cut out of 1952 profits.

• **American Chicle Co.** has just filed a report for the year ending December 31, 1951. While sales are up considerably over 1950, the net profit and earnings per share are reduced. The 1951 sales amounted to $38,350,456 as against $35,120,118 in 1950; earnings were $3.21 per share in 1951 and $3.70 in 1950; net profits in the same years amounted to $4,163,637 and $4,803,037.

• **Martha Washington Candies Co.** has announced the consolidation of its Baltimore and Chicago plants on April 6, and the opening of a warehouse in Baltimore. Mr. A. A. Comey, president, also announced the plans to acquire a factory in the Los Angeles area in the near future.

• **F. W. Washburn Candy Corporation** has moved into its new home at 137-147 Perkins Avenue, Brockton, Massachusetts. After experiencing the trials and difficulties of moving, Waleeco is now the proud occupant of a very modern, streamlined candy making plant.

• **Rockwood & Company,** which boasts of being the second largest chocolate manufacturer in the United States and one of the oldest in the industry, has just issued their 65th Anniversary report for 1951. Mr. H. Russell Burbank, president, reports

For You!...

FOR YOU
— who have memories of
waving palms, starry tropical nights,
soft music, exotic foods
— all never forgotten —
we recapture those memories!

FOR YOU
— who have yet to experience
the wondrous beauties of the south
Pacific isles, we preview one of
their delights with the tangy,
exciting flavor of the

Passion Fruit

#602. IMITATION

It's Different • It's Nostalgic • It's Delicious!
It's for your "holiday" line!
Samples? . . . Of course.

FLAVORS • ESSENTIAL OILS • AROMATICS

FELTON CHEMICAL COMPANY, INC.
599 Johnson Ave., Brooklyn 37, N. Y.

PLANTS: Brooklyn, N. Y. • Los Angeles, Cal. • Montreal, Que. • Paris, France
SALES OFFICES: Atlanta • Boston • Chicago • Dallas • Philadelphia
St. Louis • Toledo • Toronto

Stocks Carried in Principal Cities

Direct Line to Good Flavor
the "12" line
IMITATION CONCENTRATED CANDY FLAVORS
Thirty-two wholesome flavors... from Apple through Walnut... a solid line of good taste and aroma. Choose and use with confidence...
Strawberry • Peach • Tutti Fruitti • Walnut • Grape • Raspberry • Cherry and other flavorful favorites
...and when it comes to Chocolate flavoring, try
PURE VANILLA CONCENTRATE 10X
• PLANIFOLINE 10X
• PROTOVAN F
• CHOCOLATONE
NEW YORK TAlmadge 8-6000
CHICAGO FRanklin 2-3555
LOS ANGELES TRinity 9797
all created to improve, enhance and sell your finished chocolate products
*Artificial flavor
Florasynth LABORATORIES, INC.
CHICAGO 6 • NEW YORK 61 • LOS ANGELES 21
DALLAS 1 • DETROIT 2 • MEMPHIS 1 • NEW ORLEANS 13
ST. LOUIS 2 • SAN BERNARDINO • SAN FRANCISCO 7
Florasynth Labs. (Canada) Ltd. – Montreal • Toronto • Vancouver • Winnipeg
Florasynth Laboratorios de Mexico S. A. – Mexico City

that dollar sales in 1951 were slightly higher than in 1950, but that poundage sales were lower. The lower net reflected by their balance sheet is indicative of the general trends in food industries.

A recent appointment to the Rockwood staff is Mr. Fred R. Nye, formerly New England branch manager of the H. J. Heinz Company, who will act as sales manager of consumer goods at Rockwood.

• **Mars, Incorporated, Chicago,** has been honored for it's safety record by Liberty Mutual Insurance Company.

This is not the first award that Mars has received for it's splendid safety record. In 1950 the accident prevention flag was presented to the company for reducing accidents to 75 per cent below the average for the confectionery industry. In 1951 the record was far better; the average from September, 1950 to September, 1951 was 97 per cent below that of the industry.

• **Mr. Smiles, former owner of Mary Lee Candies,** and recently general manager of the A-Z Candy Company of Detroit, passed away on February 7, following an operation. Mr. Smiles had been active in the confectionery industry for over 20 years, and his many friends will be sorry to learn of his death.

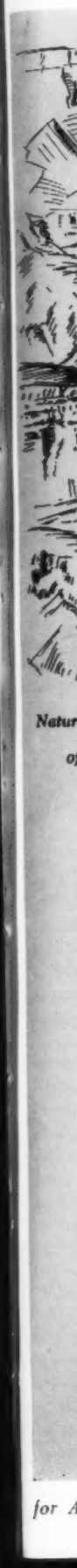
• **The Frank H. Fleer Company** has taken positive steps to eliminate the worn-out practice of presenting gold watches after long periods of service.

Miss May Rankin, a faithful employee with 50 years' service, was recently rewarded by being told she could travel anywhere in the world at the company's expense. She was also given an extra week's vacation with pay, a set of matched luggage, and $150 in cash. If a timepiece was a part of Miss Rankin's needs on the trip of her choice, to California, she could use some of the money for that purpose.

• **See's Candy Shops, Inc., of Los Angeles, and See's Candies, Inc., San Francisco,** were among the thirty-three food plants in California that have recently been given Honor Roll Awards by Food Sanitation Service, for "consistent achievement in maintaining a high standard of excellence in food plant sanitation during 1951."

Food and Drug Service, of which the Food Sanitation Service is a part, has a staff of former U. S. Food and Drug Administration inspectors and analysts. The 33 companies are all on the inspection list, and have been examined at least once a month, and in most cases once a week, and have been found to meet the service's requirements.

• **Huyler's,** who filed a petition in bankruptcy last April, has settled some $2,030,000 in claims to unsecured creditors at 10 cents on the dollar, and been discharged by bankruptcy referee in New York. On January 1, this year, a new management was elected, and has deposited more than $300,000 in the Corn Exchange National Bank to pay in full all creditors doing business with the company since the bankruptcy proceedings were instigated.



WHAT CANDIES SELL BEST IN
Arizona?
"ALMOND CANDIES ARE MONEYMAKERS EVERYWHERE!"
People in the nation's youngest state seem to share the same enthusiasm you find everywhere for almond candies. People like almonds, and candymakers have found that fact a key to increased sales and profits. They've found also that Blue Diamond almonds are the key to lower handling costs in their own plants.
HOW "BLUE DIAMONDS" SAVE. Leading candymakers know that uniform, dependable quality minimizes sorting and handling costs. "Blue Diamond" almonds are sorted in our plant by an exclusive photo-electric process. They are hand-picked, guaranteed uniform in quality and size, free from foreign particles, dust, chaff, or bitters. Order whole almonds, natural or blanched, or specify sliced, diced, halved, split, chopt, or slivered. We're almond specialists, and have been for 41 years.
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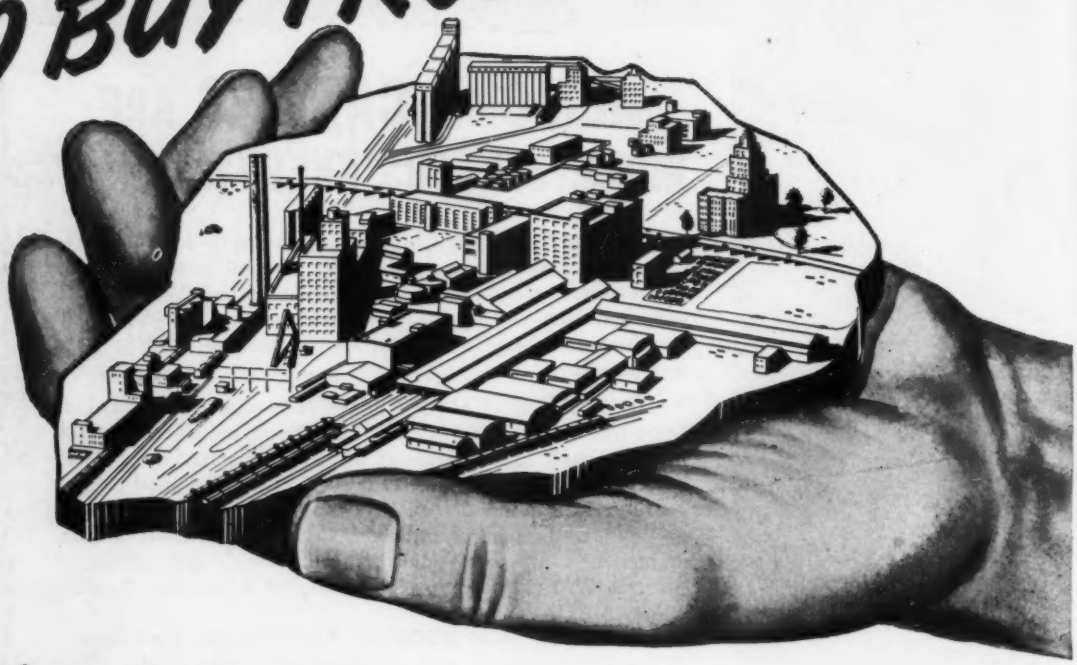

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The Manufacturing Confectioner

APRIL, 1952, VOL. XXXII NO. 4

BON BONS

by

WALTER L. RICHMOND

Bons Bons are the "dress up" candy for an assorted package. Cream coated bon bons can be made with a large variety of cast or hand rolled centers.

BON BON DIPPING

A double boiler, hot water jacketed dipping pot or an electrically heated dipping pot are suitable for remelting the fondant.

The cream should be remelted slowly. Extreme care must be taken when remelting straight sugar bon bon cream so that none of the fondant will be overheated. The bon bon coating will become dry and grainy if the cream is overheated in the remelting process or if it is cooked to too high a temperature. Overheating the cream will also destroy the gloss of the finished bon bon and spots of large sugar crystals clusters will appear on the coated bon bons.

The fondant syrup should be thoroughly cooled before creaming up to insure a fine grain in the dipping cream.

As the cream in the dipping pot is used up, any hard cream that forms around the sides of the dipping pot should be removed before adding cream to the pot. Mixing the hard cream that forms on the sides of the pot with the added fondant will cause the bon bon coating to become dry and grainy.

The fondant should be cooked to a high enough temperature so that the coating will not lose much moisture as it dries and cause the bon bon coating to wrinkle.

If the cream is remelted to the correct temperature and is too thick for dipping purposes it can be thinned with a low cooked crystal syrup. Adding water to the dipping cream to reduce the consistency of the cream will cause the coating to wrinkle.

Bon bons should not be dipped in a cold room or packed in a cold room and then placed in a warm room high in humidity, or the moisture in the air will condense on the surface of the cold bon bons and cause sweating.

Dip the centers in the bon bon coating that has been remelted to a temperature of 135 to 145 degrees. Place the dipped bon bon on wax paper lined trays. Let set about one hour and loosen the bon bons from the wax paper to allow the bottoms of the bon bons to become dry. Let remain on trays for at least four hours before packing. Bon bons dipped in the morning can be packed in the afternoon. Bon bons dipped in the afternoon should be loosened from the paper and packed the next morning.

BON BON PACKING

Pack the bon bons in white glassine paper cups, place in trays and store trays in a cupboard. Or, they can be packed in paper cups and placed in layers in stock boxes with wax paper, card board and tissue paper between the layers. Pack one layer of bon bons in the bottom of the box. Place a wax paper on top of the bon bons. Crumple a sheet of tissue paper to form a cushion between the bon bons and the layer board which is laid on top of the

A new series by Walter L. Richmond, famous as author of *Candy Production Methods and Formulas*, published by THE MANUFACTURING CONFECTIONER.

These new articles will be for smaller batches and quicker turnover.

paper cushion. Pack the second and third layers in the same manner.

When packed in this manner the sides and ends of the stock boxes should not be lined with wax paper. Some air should circulate around the bon bons or the moisture they give off will condense on the surface of the bon bons and cause them to wrinkle and at times cause the color to fade.

The following method of packing bon bons in stock boxes has proved to be successful. On each side of the card board stock box, cut at least three openings about three inches high and one inch wide. The openings in the sides of the boxes will allow air to circulate through the box.

Following are three formulae for successful bon bon making:

HAND ROLLED BON BON CENTER FONDANT FOR HAND ROLLED CENTERS

Small Batch Hand Made	*Ingredients*	*Large Batch* Machine Made
21 pounds	Medium granulated sugar	84 pounds
3 pounds	Corn syrup	12 pounds
1 gallon	Water	4 gallons

PROCEDURE: Place sugar, corn syrup and water in cooking kettle. Cook to 243-244 degrees. Pour onto cream slab or cream beater. Cool to 100 degrees. Cream up the batch and allow it to sweat back. Place in covered containers and let remain until ready to use.

REMARKS: This fondant can be cooked to 240 degrees and used for pot dipped cordial fruits.

The fondant can be used to make a variety of bon bon centers by adding chopped glacè fruits or chopped nuts to it.

The flavor, a small amount of invert sugar to soften the fondant and chopped nuts or fruits are then mixed with fondant. When well mixed, roll into pieces about eight inches long and one-half inch thick. Cut the sticks into pieces about one-half inch long and hand roll into ball shaped or oval pieces. The rolled centers will set up firm enough to dip in about one-half hour.

A few combinations of flavors and nuts or fruits are listed below.

No. 1 Lemon: 3 pounds cream flavored with Lemon oil or emulsion mixed with 5 ounces of chopped raw filberts. Dip in yellow bon bon cream.

No. 2 Orange: 3 pounds cream flavored with Orange oil or emulsion mixed with 5 ounces chopped lightly roasted cashew nuts. Dip in orange colored cream. Top with small pecan half.

No. 3 Walnut: 3 pounds cream flavored with Vanilla mixed with 6 ounces chopped English walnuts. Dip in pink cream. One-quarter of an English walnut top can be used as a topping if so desired.

No. 4 Coconut: 3 pounds cream flavored lightly with Anise oil, Roman Punch or Pistachio flavor, mixed with 4 ounces fine coconut. Dip in pale green cream and top off with a strip of citron peel.

No. 5 Cherry: 3 pounds cream flavored with Wild Cherry, mixed with 4 ounces chopped glacè cherries. Dip in white cream and top with icing flower on top with a strip of glacè cherry and basket string. (The cherry piece is laid on the top of the bon bon and the string crossed over the top of the cherry from one side of the bon bon to the other side. A very experienced dipper is required for this type of string.)

No. 6 Caramel and Almond Paste: 3 pounds cream mixed with 12 ounces of almond or kernel paste. Mix well and use as a center for caramel jacket. Roll Vanilla caramel thin, place fondant across the center of the caramel sheet. Overlap the caramel and roll into long strips about eight inches long and one-half inch thick. Cut the sticks into pieces about three-fourths inch long. Roll into oval shaped pieces. Dip in white cream and top with icing flower.

BON BON COATING NO. 1 —UNCRYSTALLIZED

Small Batch Hand Made	*Ingredients*	*Large Batch* Machine Made
10 pounds	Medium granulated sugar	100 pounds
½ dram	Glycerine	5 drams
½ dram	Acetic acid #8 (28%)	5 drams
½ ounce	Ground gelatine	3½ ounces
4¾ pints	Water	6 gallons

PROCEDURE: Place sugar and water in cooking kettle. Cook to 236 degrees Fahr. Add Acetic acid and glycerine. Cook to 242-243 degrees. Remove from fire or shut off steam (if made in a steam kettle), add the gelatine which has been soaked in twice its weight of water. Stir gently until gelatine is dissolved. Avoid touching sides or bottom of the kettle. Pour onto cream slab or cream beater that has been lightly sprinkled with water. Sprinkle top of batch with a small amount of water. Cool to as low a temperature as possible. Cream up the batch and place at once in a container. Place a damp cloth over the fondant and cover the container so that the fondant will sweat back and become smooth. Let remain in covered container for at least 4 hours before using.

REMARKS: This batch contains an excessive amount of water. The prolonged cooking acts as a "doctor" and inverts some of the sugar. Follow instructions for bon bon dipping and packing.

Remelt the cream to a temperature of 135-145 degrees. If the remelted cream becomes too heavy to dip easily it can be thinned by adding a very small amount of sugar water solution made with equal parts sugar and water.

If the cream becomes overheated it is better to discard it, wash the dipping pot and start over again with smooth dipping cream.

A small amount of invert sugar can be added to the sugar water solution if so desired.

BON BON COATING NO. 2—CRYSTALLIZED

The fondants used in bon bon center formula can be used as a coating for crystallized bon bons.

Both of these fondants contain corn syrup. The cast bon bon fondant contains 80% sugar and has a tougher texture than the fondant used for hand rolled bon bon centers, because of its higher sugar content.

Dipping creams for crystallized bon bons must be cooked and remelted at temperatures high enough to set them firmly. The bon bons will soften up after they are crystallized.

Crystallized bon bons can be made and stored for several weeks before using. Many retail confectioners use them for summer assortments or for the holiday seasons. Their long shelf life makes it possible to make and pack an assorted package a few weeks before a holiday and thus avoid the pressure caused by trying to pack a large volume of bon bon and chocolate assortments in the space of time limited to the shelf life of uncrystallized or plain bon bons.

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ORGANOLEPTIC PANELS

PURPOSES • OBJECTIVES • PROCEDURES

Mr. George Gelman
Vice President
Visco Products Co., Chicago

THE MANUFACTURING CONFECTIONER is pleased to be able to present in its entirety the very interesting and much discussed talk made by Mr. Gelman at a recent meeting of the Chicago Section of American Association of Candy Technologists.

Mr. Gelman is well known as a food Technologist. A veteran of World War II, he received the Oak Leaf Cluster for his work on food research.

I Purposes

FLAVOR and appearance are two of the most important factors affecting the products that your companies sell and yet are probably the least understood and investigated. There is a logical explanation for this state of affairs. The average food company has not been in a position to engage in scientific investigation of the psychological, physiological and statistical methods necessary to obtain valid and reliable organoleptic measurements of their products.

The complexity of the subject provides its own explanation for the heretofore relatively modest activity in commercial laboratories. However, during the latter part of the war years and since industry, university and government laboratories have adapted, developed and published sufficiently of the basic panel procedures to permit limited, but significant practical applications for the food industries.

An increasing number of industrial laboratories have been "getting into the act". The candy industry, because it is primarily selling taste appeal, probably should be at least as much concerned with organoleptic evaluations of their commodities as any other segment of the food industries. Even the pharmaceutical manufacturers have found it advisable to recognize the importance of organoleptic panels to the sale of their products.

Some of the major draw-backs to establishing panels in the past have been:

(1) The apparent necessity for specially trained personnel;
(2) Discussions pertaining to panels have been excessively technical; or
(3) Presumed a background of information which made comprehension or application difficult.

There is no intention to imply that the operation of panels is now a bed of roses; that the literature has been simplified; that the contradictions have been resolved; that the nomenclature has been standardized; or, in short, that it is a push button affair. However, there is enough information available now to make a start.

II Objectives

There are three broad categories of panel investigations:

(1) small sensory difference panels;
(2) small consumer preference panels; and
(3) large consumer acceptance panels.

The objectives accomplished and problems solved by these three types of panels are:

A. *The sensory difference panel* is concerned with the detection of small differences in quality factors and not with preferences. However, there is a relation to preference judgments. If it can be shown that a specific change introduces no detectable difference, then obviously, there should be no accompanying change in preference. Should a difference be demonstrated, it is the responsibility of the preference panel to indicate whether the change is desirable, indifferent or undesirable. Typical problems that may be solved by sensory difference panels are:

1. The effect on the finished product or critical intermediary as a result of changes in or the adequacy of:
   a. Raw materials.
   b. Processing treatment.
   c. Equipment.
   d. Formulation.
      (1) Nutrient fortification
      (2) Anti-deterioration agents
   e. Storage.
   f. Packaging.
2. The determination of and the effect on the finished product or critical intermediary of

foreign odor absorption.

3. Quality control on:
   a. Raw material uniformity.
   b. Blending operations.
   c. Uniformity of finished product.
4. Determination of difficult or otherwise non-analyzable components in:
   a. Competitors products
   b. Suppliers trade-marked materials
5. Isolation of reactants responsible for flavor deterioration.
6. Correlation of specific chemical or physical tests with flavor quality changes so that panel work may be minimized or eliminated.

B. *The preference panel* has the virtue of being a readily available means by which a tentative or presumptive indication can be obtained regarding the significance of differences on the acceptability of a product. This may be relative to a current item or a competitor's piece. Information may also be secured that can be useful for product improvement or product development by so designing the tests that the panel is provided an opportunity to indicate their reaction to specific quality factors such as: color, taste, odor, size, shape, amount, texture, sound (crunchy), pungency, coolness, dryness, waxiness, name, previous familiarity, utility, after-taste, and frequency of consumption. The panel provides information of a "screening" character, since it represents only a "chunk" of your consuming public. In the absence of any additional means to secure more representative information, this presumptive data may be very useful in arriving at decisions which otherwise would have to depend solely upon experience, chance or both.

C. *The consumer's acceptance panel* is utilized to confirm the presumptive findings of the consumer preference studies. Because the panel is sufficiently large and properly selected to truly represent your consuming public, it should be possible to determine and/or confirm the acceptability of your product. The disadvantages of this panel are:
   1. The difficulty of obtaining a mass panel representation of the public.
   2. The necessity of going outside your own organization to secure the panel.
   3. The time involved.
   4. The cost.

III Procedures

The three types of panels have been arbitrarily characterized and compared in Table 1 with respect to the following considerations:

1. Purpose.
2. Number of panel members required.
3. Where personnel are obtained.
4. Whether training is required.
5. Sensitivity (low threshold i.e., ability to detect a specific component at low concentrations).
6. Validity (ability to assess different concentrations of a specific component on *known* samples).
7. Reliability (consistent reproducibility over a period of time).
8. Extent to which panel's preferences are representative of the customer public.

A number of experimental test procedures have been described in the literature. The group listed in Table 2 has ben selected because of the variety of commonly occuring problems to which they are applicable.

In addition, Table 2 indicates the type of panel for which these tests are designed and specific literature references which are pertinent.

These literature references discuss:

1. The advantages and disadvantages of each method.
2. The precise procedure for conducting the test concerned.
3. The number (range) of judges or observations required for particular levels of confidence.
4. Recommended statistical analyses for interpreting the results.
5. Procedures for selecting and training observers for sensory difference panels.

If you are not satisfied with your present panel procedures, or absence of them, the investment in time and effort on at least the more simple methodologies should prove to be gratifying and profitable.

I earnestly recommend that a beginning be made by investigating the Triangle test as a means of selecting a sensory difference panel. This same test has general applicability to many kinds of sensory difference problems. For Preference Studies, the Paired Comparison test is recommended for its relative simplicity and general applicability. Both of these procedures are well described in the literature indicated in Table 2.

Do you have to be a statistician to design your tests and interpret the results? By analogy—not any more so than it is necessary to be a mathematician to use mathematics. It would be desirable to learn some of the fundamental concepts. However, even this has been rendered painless to some extent by the preparation of charts which are also contained in the literature references, particularly reference (2).

I have recast two of these charts, Table 3 for Paired Comparisons and Table 4 for Triangle Tests. For the

Table 1

CHARACTERISTICS OF ORGANOLEPTIC PANELS

Panel Characteristics	Sensory Difference Panel	Preference Panel	Consumer Acceptance Panel
Purpose	Discriminate small differences	Preferences	Acceptance
No. Required	1-20	20-50	Very large number
Where Obtained	Own Organization	Own Organization	General Public
Training Required	Yes	No	No
Sensitivity	Yes	No	No
Validity	Yes	No	No
Reliability	Yes	Yes	Yes
Relation to consuming Public with Regard to Preference	Unknown	Presumption (Screening)	Confirmation

Table 2

EXPERIMENTAL TEST PROCEDURES

Test Procedures	Sensory Difference Panel	Preference Panel	Consumer Acceptance Panel	Literature References
Paired Comparison	X	X	X	2, 3, 4, 6
Duo-Trio	X	—	—	1, 3
Triangle	X	—	—	1, 2, 3, 4
Dual Standard	X	—	—	1
Non-Symmetrical Binomials	X	—	—	3
Numerical Scoring	X	X	—	2, 4, 5
Method of Successive Intervals	—	X	X	5
Rank Order	X	X	—	2, 4, 5
Dilution or Threshold	X	—	—	2, 4

Table 3

SIGNIFICANCE LEVELS FOR PAIRED COMPARISONS (Re-estimated from Harrison and Elder)

(a) Number of Panel Finding Higher Quality Rating			(a) Number of Panel Finding a Difference	
At the 1% Level of Confidence	At the 5% Level of Confidence		At the 5% Level of Confidence	At the 1% Level of Confidence
(b)	6	6	6	(b)
9	8	10	9	10
13	12	16	13	14
16	14	20	15	16
22	20	30	21	23
28	26	40	27	29
62	59	100	60	63
530	520	1000	530	540

(a) Rounded to the nearest whole number.
(b) Too few judges to obtain 1% of level confidence.

Table 4

SIGNIFICANCE LEVELS FOR TRIANGULAR TESTS (Re-estimated from Harrison and Elder)

Panel Size	(a) Number of Observers Correctly Identifying Odd Sample	
	At the 5% Level of Confidence	At the 1% Level of Confidence
10	7	8
12	8	9
15	9	10
18	10	12
21	12	13
24	13	15
27	15	16
30	16	17
33	17	19

(a) Rounded to the nearest whole number.

given panel sizes, the tables indicate the number of responses necessary for the results to be "significant" and "highly significant". Significant indicates that the difference would be expected to occur by chance five times in a hundred ($P = 0.05$ or probability at the 5% level of confidence). Highly significant indicates that the difference would be expected to occur by chance once in one hundred times ($P = 0.01$ or probability at the 1% level of confidence). It is interesting to note that the Triangle test requires fewer judges than does the Paired Comparison test to obtain the same significance levels.

Boggs and Hanson (Reference 4) state that *"To obtain high accuracy*, experiments should be designed to:

(1) minimize within—sample variation
(2) limit the number of samples and characteristics of each that are judged in one period
(3) submit at one time all the samples for which comparative data are desired
(4) relate experimental samples to control samples
(5) mask all characteristics except the one under consideration
(6) eliminate samples of strong odor or flavor when possible
(7) judge sufficient replicates to show that trends can be repeated or replicate sufficiently that data can be analyzed statistically. It is also important in judging any characteristics that the terms used mean the same to all persons.

To obtain accurate judging it is important to:

(1) train judges to distinguish differences in specific characteristics
(2) select judges for acuity and consistency
(3) check performance to determine whether judges continue to be acute and consistent
(4) maintain interest and confidence while avoiding prejudice, and
(5) avoid fatigue by limiting the number and kind of samples and factors scored.

The environment and other conditions of testing are recognized as important for accurate results".

"If you can measure that of which you speak, and can express it by a number, you know something of your subject; but if you cannot measure it, your knowledge is meagre and unsatisfactory".
Lord Kelvin

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Distribution • Sales • Advertising

• **Brecht Candy Company of Denver** is announcing a new candy bar, "Triple Treat," in a novel way—a beauty contest designed to find Denver's most attractive triplets. Entrants must be under 25 years of age, and should send in their photographs, or have their friends do so, before June 1. The winners will be given a weekend at the Broadmoor Hotel. Second and third prizes are $99 and $30 in cash, respectively. Photos should be mailed to the "Triple Treat" contest, 1439 Court Place, Denver 2, Colorado.

• **Pioneer Ice Cream Division of the Borden Co.** have been testing the market for their new frozen bon bon product. A refrigerated item for grocers with cold cases, this is a delightfully refreshing frozen dessert covered with a thin chocolate coating. Just bite-size there are five pieces to a carton, selling for ten cents. The manufacturer suggests them as being "just right" for tea time or with after dinner coffee instead of dessert.

• **Cadbury-Fry** secured the talents of some of radio's leading personalities for their airways campaign which was launched on February 18, and continued through Easter Week. Featuring the products of the company were Jack Sterling, WCBS; Bob and Ray, WNBC; Gallagher and O'Brien, WMCA; Art Scanlon, WINS; and George Edwards, WQXR; in daily multiple announcements which reached more than two million listeners.

The radio campaign was supported substantially in the business press. For retail outlets, a blue and white window streamer with a photograph line-up of the participating stars was provided in large quantities for the New York Metropolitan Area.

• **Candyland, Inc.,** marshmallow firm from Sioux City, Iowa, has appointed the following brokers: Pemberton Brokerage Co., Oklahoma City; V. E. Eilers & Co., Indianapolis; Dan M. McHugh Co., Cincinnati; Willard & Co., Columbus, Ohio; Brigham Brokerage Co., Milwaukee; and Meinrath Brokerage Co., Kansas City, Mo.

• **Barricini Candies** has promoted Wallace Cane to Director of Advertising, Public Relations and Promotion. Mr. Cane's offices will be in Long Island City. He joined the firm as advertising manager in October, 1951.

• **Barton's Bonbonniere** has just opened its fifty-first store at 572 Eighth Avenue in New York. It is estimated that 10,000 people passed through the store the first day enjoying free candies at the all-day candy party.

• **Loft Candy Company** has promoted Si Hack to Director of Merchandising and Distribution. Formerly Chief Supervisor, Mr. Hack serving as merchandising assistant to Leonard Wurzel, Vice President in charge of merchandising.

• **Imperial Candy Co.,** Seattle, has recently signed to sponsor "Chet Huntley and the News," over 19 stations of American Broadcasting Co.'s Pacific Coast and Rocky Mountain radio networks for its Societe Brand candy. Sponsorship covers a weekly quarter-hour on Sundays, 8:45 a.m., PST.

• **Abbott Kimball Co., Inc.** has purchased participation time in five different television shows in the New York market for a campaign of Dairy Box Chocolates, a Rowntree Candy import of Drake America Corp.

• **Fannie May Candy Co.** has been issued a United States patent covering a new package for frozen candy. The company succeeded in freezing candy a number of years ago, but it was only two years ago that they started to develop the idea of retailing frozen candy.

The new patented package completely overcomes discoloration and excess moisture in chocolate candies under all conditions of low refrigeration. After a year's sales tests in various retail outlets, the product, under the name of Dorothy Coleman by Fannie May, is now in distribution in a number of states.

• **William Wrigley, Jr. Co's** Poster Advertising has received recognition in the 20th Exhibition of Outdoor Advertising Art. The gum manufacturer received first and third place awards in the Confections Class.

This competition is sponsored by the Art Directors Club of Chicago, and selection is made of the "100 Best Posters" used during the previous year.

• **King Candy Co.** of Fort Worth has appointed L. C. DeForest advertising and merchandising manager, and E. J. Robb as head of the sales department. Mr. DeForest comes to King from a New York advertising agency, and Mr. Robb from his position as fountain division sales manager for Dr. Pepper Co., Dallas.

• **Loft Candy Corp.** reached an all time sales peak of more than $15,000,000 during 1951, according to George R. Frederick, president. Sales in 1951 rose about 12% above 1950.

National Advertising

The following National Advertising listings have been compiled and arranged as an informative service to the confectionery industry.

Information on magazine advertising expenditures is printed by The MANUFACTURING CONFECTIONER with the special permission of Publishers Information Bureau.

The radio advertising table is compiled and arranged by the staff of The MANUFACTURING CONFECTIONER from network and private sources.

These listings have been a regular feature of The MANUFACTURING CONFECTIONER publications since May, 1951.

Magazines — JANUARY

Advertiser	Magazines		January Expenditure	Total 1951	Total 1950
Fred W. Amend Co.	Last advertised in January, 1951		$	$ 1,195	$ 5,564
Barracini Candy Co.	Last advertised in April, 1951			3,170	8,152
Beech-Nut Packing Co. (Beech-Nut Gum)	American Girl—835; Family Circle Magazine—5,665; Saturday Evening Post—18,810	Total	25,310	112,555	57,520
Blumenthal Bros.	American Girl		1,250	2,605	6,030
Blum's Confectionery	New Yorker Magazine		328	3,406	
E. J. Brach & Sons	See February, 1952, issue			124,897	53,020
Brown & Haley Candy Co. (Almond Roca)	See March, 1952, issue			21,750	27,567
Candy Pack, Inc. (Swedish Mints)	See November, 1951, issue			192	120
The Cracker Jack Co. (Campfire & Angelus Marshmallows)	Ladies' Home Journal		10,415	60,234	54,047
Cresca Co., Inc. (Lindt Candy)	See March, 1952, issue			7,575	7,161
Cresca Co., Inc. (Pascall Candy)	New Yorker Magazine—659; New York Times Magazine—792	Total	1,451	3,981	
Crosse & Blackwell, Inc. (Kieller's Candy)	See March, 1952, issue			8,417	9,167
Curtis Candy Co.	Scholastic Magazines—3,850; Better Living—5,475	Total	9,325	113,308	29,702
DeMet's, Inc. (Turtles)	See March, 1952, issue			25,980	3,500
Flavour Candy Co.	See January, 1952, issue			455	3,645
Frank H. Fleer Corp. (Fleer's Bubble Gum)	Collier's—1,143; Life—4,970; Look—2,990; Saturday Evening Post—1,700	Total	10,803	72,720	
John O. Gilbert Chocolate Co.	See March, 1952, issue			4,840	3,300
H. Hamstra & Co. (Droste Chocolates)	See March, 1952, issue			2,411	
Henry Heide, Inc.	Life—2,485; Saturday Evening Post—1,700	Total	4,185	57,300	57,985
The Kroger Co.	See January, 1952, issue			2,460	
Liberty Orchards Co. (Aplets, Cotlets)	See February, 1952, issue			499	
Life Saver Corp.	Life—26,900; Look—15,290; Saturday Evening Post—18,810	Total	61,000	465,565	336,245
Mars, Inc.	Look		10,160	178,330	144,154
National Dairy Products Corp. (Kraft Caramels)	Last Advertised in June, 1951			61,300	70,375
New England Confectionery Co. (Necco Candies)	See March, 1952, issue			155,980	89,680
Pangburn Co.	Esquire—650; Holiday—585; Look—1,495	Total	2,530	6,420	
Peter Paul, Inc. (Mounds & Almond Joy bars)	See March, 1952, issue			272,217	222,929
Planters Nut & Chocolate Co.	Scholastic Magazines		2,210	170,398	194,831
Thomas D. Richardson Co.	See February, 1952, issue			67,130	102,005
Rockwood & Co. (Rockwood Wafers)	Saturday Evening Post—3,365; Parade—2,515	Total	5,880	119,685	144,606
Safeways Stores, Inc. (Roxbury Candy)	See March, 1952, issue			11,700	
Frank G. Shattuck (Schrafft's Chocolates)	See March, 1952, issue			77,330	
Sophie Mae Candy Corp.	Everywoman's Magazine		563	23,729	2,421

Russell Stover Candies			
See March, 1952, issue		9,625	
Sweet Candy Co.			
Last advertised in March, 1951		700	1,400
Sweets Co. of America, Inc. (Tootsie Rolls)			
See January, 1952, issue		43,659	57,960
Switzer's Licorice Co.			
Everywoman's Magazine—790; Look—1,142; Saturday Evening Post—1,232 **Total**	3,164	47,150	38,355
Vernell's Fine Candies, Inc.			
Life	2,485	2,485	
James O. Welch Co. (Coconut bar & Mint Patties)			
See March, 1952, issue		164,934	104,670
Stephen F. Whitman & Sons, Inc.			
Saturday Evening Post	18,810	398,230	408,005
Wilbur-Suchard Chocolate Co., Inc.			
See March, 1952, issue		44,400	
R. C. Williams & Co., Inc. (Tobler Candy)			
Gourmet—38; New Yorker—472; Town & Country—138 **Total**	648	5,753	
William Wrigley, Jr., Co.			
Better Living—3,860; Everywoman's Magazine—3,450; Family Circle Magazine—7,133; Parents' Magazine—3,850; Today's Woman—2,200; Woman's Day—7,383 **Total**	27,876	295,020	198,361
Zion Industries, Inc.			
Last Advertised in March, 1951		105	
Total Magazine Advertising Expenditure	$198,393	$3,251,795	$2,442,477

Radio and Television — FEBRUARY

Sponsor	Network	No. of Stations	Time
Fred W. Amend Co.	ABC-TV	5	4 30-min. shows
American Chicle Co.	ABC	251	4 30-min. shows
		232	4 30-min. shows
		265	4 15-min. shows
	Mutual	525	4 5-min. shows
D. L. Clarke Co.	Dumont-TV	WABD (Local)	1 min. spots
Gold Medal Candy Co.	NBC-TV	WNBT (Local)	4 15-min. shows
Hollywood Candy Co.	ABC-TV	28	2 30-min. shows
Johnson Candy Co.	Dumont-TV	31	4 30-min. shows
Kraft Candy Co.	Mutual	541	13 15-min. shows*
		532	4 15-min. shows
M. & M., Ltd.	CBS-TV	25	4 30-min. shows
	ABC-TV	50	4 30-min. shows
	CBS	153	4 30-min. shows
Mars, Inc.	NBC-TV	42	8 15-min. shows*
Peter Paul, Inc.	CBS	14	13 10-min. newscasts
	NBC-TV	39	4 15-min. shows
Sweets Co. of America	ABC-TV	21	4 15-min. shows
Williamson Candy Co.	Mutual	515	4 30-min. shows
William Wrigley, Jr., Co.	CBS	179	4 30-min. shows
		186	4 30-min. shows
	CBS-TV	9	4 30-min. shows

*Program is co-sponsored

"Successful Prize Contests" reveals the whys and wherefores of this appealing type of promotional tool. Lester M. Cone, Jr. and Zenn Kaufman, who are co-authors, have drawn liberally on the experiences of others and their own knowledge to show how it's done.

Almost half of the book's 567 pages deals with 44 complete case studies of outstandingly successful contests.

Published by Prentice-Hall, Inc., 70 Fifth Avenue, New York 11, this book is a practical guidance for each step in the planning and running of a successful trade or consumer contest.

"Selling to Industry" is the title of a new book just published by the Industrial Press, 148 Lafayette Street, New York. Authored by Bernard Lester, Consulting Management Engineer, this book is written to cover the problems encountered in selling machinery, industrial equipment and services, and the solutions which have been found to be most effective.

This compact, pocket-size book contains short easy-to-read articles and many case histories to illustrate the points covered. The author writes from his experiences as sales executive for Westinghouse Electric Corporation, lecturer on sales engineering and marketing, and as a consultant on marketing and selling.

• **According to the Bureau of the Census,** estimates of manufacturers' sales of confectionery and chocolate products for January 1952, were $89,247,000, one per cent below January of last year. Sales of Manufacturer-Wholesalers showed a decrease of seven per cent from December, 1951, and less than 0.5 per cent change from January 1951. Chocolate manufacturers showed an increase of 31 per cent from December 1951, and a decrease of seven per per cent from January 1951.

Hans' Diary

Hans Dresel

This will be the last insertion of these interesting letters from Hans Dresel, conference chairman of PMCA and Felton representative. Hans is home now—back in the U.S.A. THE MANUFACTURING CONFECTIONER has been happy to bring this series to it's readers. And although we shall miss your reports, Hans, we want to say "Welcome home!"

Amsterdam, Holland

January 31—The "Vakgroep Suikerwerk—en Chocoladverwerkende Industrie" represents the Dutch candy industry the same as N.C.A. represents the industry in the United States. Mr. Wellman, for 30 years secretary of the association, ably guides their affairs. They have 360 members. The consumption of confectionery (without solid chocolate) is 8½ pounds per year per capita.

The pay for an experienced man is approximately 60 guilders ($15.78) per week. Only about 10 of the manufacturers employ the service of a trained chemist or technologist. The association maintains educational places in various cities of Holland at which men employed by the industry can attend lectures 4 hours per week for one year.

The "Ondervakgroep Suikerwerkindustrie", Afdeling Research, is the research department of the Dutch Confectioners Association. Mr. C. Nieman is in charge of this project and inasmuch as they started their work only recently, very little information is available. Mr. Nieman assists Prof. B. C. P. Jensen in the analytical evaluation of glycyrrhicinic acid found in licorice. This seems to have a hormone like activity and might be used favorably to combat certain diseases. They also work on the fortification of candies with certain vitamins.

Amsterdam seems to have an exceptionally large number of candy stores, and it is not uncommon to find two and three stores in a city block. The merchandise displayed is of the highest quality and beautifully presented. One finds many Swiss manufacturers represented, although the domestic manufacturer is in great majority. Chocolates and baked goods are frequently sold at the same business establishment.

Paris, France

Mr. Jean Vialla, secretary of the "Union des Chambres Syndicales Nationales des Chocolatiers, Confiseurs, Fabricants Detaillants et Artisans de Chocolaterie et de Confiserie", arranged for me to meet with a few prominent manufacturers in and near Paris. Mr. Vialla told me that the French candy association has approximately 1000 members, 200 of which manufacture chocolates and 800 candies. The consumption in France is only 5 pounds of confections per year per capita. The pay for an experienced candy man is approximately 180-200 francs per hour (53c-58c). In addition to this the manufacturer has to pay 30-40% for social benefits.

In Arcueil s/Seine the association maintains a laboratory under the guidance of Mr. Jean Vollaire-Salva. The laboratory is located in a most picturesque building, formerly the hunting lodge of Blanche de Castille, a 13th century French queen. The equipment is definitely not quite so old. Mr. Vollaire is primarily conducting analytical work for the members of the association and inasmuch as he has only one assistant, very little time for research work is available.

With the exception of vanillin, mostly natural flavor ingredients are used in France and it is interesting to note that the use of coumarin is entirely prohibited. They also are not permitted to use starch in the manufacturing of confections; it is used only as a moulding medium.

The types of candy manufactured in France are quite different from those made in the U.S.A. A satin finished hard candy seems to be little known but as in England most candies are individually wrapped in one or two wraps. The variation of hard candies is much smaller than we are accustomed to and they are sold usually in groceries and bakeries. The chocolates sold are of highest quality, most beautifully packed in handmade boxes, which are pieces of art by themselves. For fillings a great variety of liqueurs are used and a liqueur filled candy seems to be the favorite of the parisian consumer.

I am told that the French consumer insists on a continuous change in design of package, shape and colour of the finished candy which makes it quite impossible for the average candy manufacturer to streamline his production.

Germany

March 3—Germany after losing the eastern part of the country still has more than 50 million inhabitants.

The candy and chocolate industry in step with others made a strong comeback, and today Germany has over 700 candy factories and 80 factories manufacturing

Mrs. Dresel enjoys Sunday Market at Open Air Candy Booths in Paris.

chocolate.

Most manufacturers located originally in the eastern (Russian) zone moved their plants to the western zone, and now manufacture in new plants or use their old trade names and have their products made by other manufacturers. Only about 3 or 4 plants remain in the eastern zone, manufacturing rather small quantities at a much lower standard of quality than the manufacturers in the western part of Germany. As in other European countries the manufacturer of chocolate coating also manufactures chocolate candies and competes with his customer for the same market.

The workers in the candy industry in Germany receive about the same in marks and pfennigs as our workers receive in dollars and cents. Where we pay $1.50 per hour the German manufacturer pays 1.50 Deutsche Mark. In the East Zone (Russian) the same applies for the East Mark. The worker in the East Zone will receive 1.50 East Mark. But the East Mark is only worth ¼ of the West Mark.

The scientific development for the candy industry is in the hands of Dr. Rudolph Heiss of the Institute for Food Technology (Institut fur Lebensmitteltechnologie) in Munich. This Institute, founded in 1941, uses at the present time the service of 13 qualified scientists. The Institute provides 14 laboratories some of which are climatised and usable for temperatures of 106° F. above to 2° F. below. Apparatus for practical pilot work and a fast growing library on technical subjects subscribing to about 100 domestic and foreign trade papers are available.

Lehigh University research has Rudy Kroekel and the Institute of Food Technology in Munich has Dr. Eugene Miller. Dr. Miller, the same as Rudy Kroekel, takes an interest in the research affairs of the candy industry in a most unselfish manner.

The candy industry in Germany is vastly interested in the work done by us at Lehigh University, the different governmental and private institutions, and will cooperate with our scientific workers in any way possible.

Zurich, Switzerland

I made a short stop at Zurich where I had the pleasure of seeing the Lindt-Sprungli Chocolate plant. They are one of the largest chocolate manufacturers in Switzerland and are as modern as any plant in the United States or Europe. Their sanitary standards are commendable. This organization has a most democratic way in its relation to its help. Women with small children can bring them to the factory where they are cared for in a nursery. Their pay is in relation to their circumstances. The pay is about 2.00 Swiss francs per hour (50c) for experienced help and in relation to the cost of food and other commodities, the workers in Switzerland seem to be better off than in the other countries I visited.

Dr. Cesar del Boca, chief chemist of Nestle in Vevey, showed great interest in the work done on the standardization of chocolate tests. Dr. Boca of Nestle's and Dr. Sprungli of Lindt's offered their full cooperation to our chemists in charge of the different chocolate laboratories.

* * *

This finished my European trip. I received a most cordial welcome and want to thank my friends at home and in Europe for the great help I received.

Conventions -- Meetings

April 1-3—Point-of-Purchase Advertising Institute, annual symposium, Waldorf-Astoria hotel, New York City.

April 1-4—American Management Association, 21st National Packaging Exposition, Atlantic City Auditorium, Atlantic City, N. J.

April 15-17—Research and Development Associates, Food and Container Institute, fifth annual meeting, Palmer House, Chicago, Ill.

April 22—Association of Consulting Chemists and Chemical Engineers, Inc., General Symposium, Hotel Belmont Plaza, New York City.

April 23-May 4—International Sugar Exhibition, R. A. I. building, Amsterdam, The Netherlands.

April 24-25—Sixth Annual Pennsylvania Manufacturing Confectioners' Association Production Conference, Lehigh University, Bethlehem, Pa.

April 28-30—American Oil Chemists' Society, spring meeting, Shamrock Hotel, Houston, Texas.

May 5-8—Greater Chicago Safety Council, 29th annual Midwest Safety Show, Congress hotel, Chicago, Illinois (Program on safety in confectionery plants scheduled for afternoon session, May 8.)

May 5-16—British Industries Fair, Earls Court, London, England.

May 11-14—National Paper Box Manufacturers Association, 34th annual convention, Drake Hotel, Chicago, Ill.

May 18-21—National Candy Wholesalers Association, annual convention and confectionery exposition, Palmer House, Chicago, Ill.

May 25-28—Flavoring Extract Manufacturers' Association, 43rd annual convention. Edgewater Beach hotel, Chicago, Illinois.

June 1-4—Associated Retail Confectioners, annual convention, Drake Hotel, Chicago, Ill.

June 1-5—National Confectioners' Association, 69th annual convention, Conrad Hilton Hotel, Chicago, Illinois.

June 19-21—Southern Wholesale Confectioners Association, 29th annual convention, George Vanderbilt hotel, Asheville, N. C.

June 19-21—Pennsylvania Manufacturing Confectioners' Association, 41st Annual Meeting, Galen Hall, Wernersville, Pa.

July 5-19—The Food Fair, London, England.

August 12-14—Western Packaging and Materials Handling Exposition, Shrine Convention Hall, Los Angeles, California.

September 14-17—National Automatic Merchandising Association, annual convention, Palmer House, Chicago, Illinois.

October 18—Sweetest Day

October 28—Association of Consulting Chemists and Chemical Engineers, Inc., annual symposium, Hotel Belmont Plaza, New York City.

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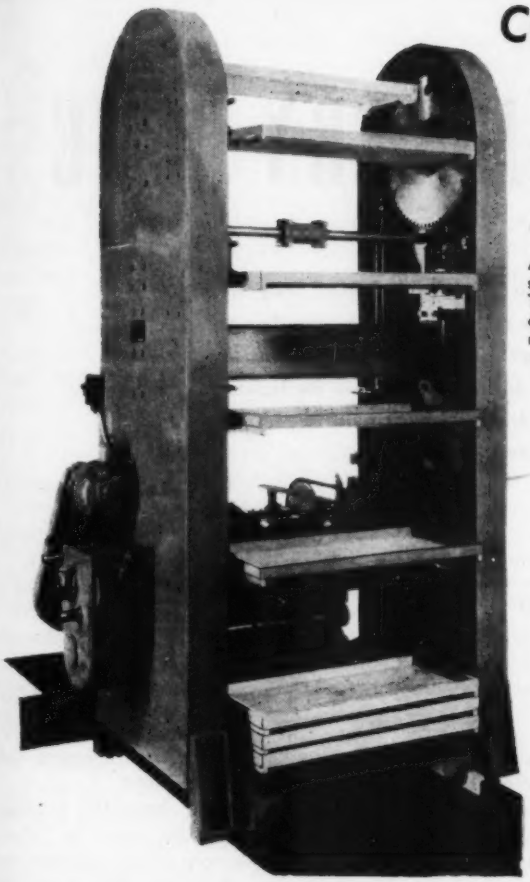

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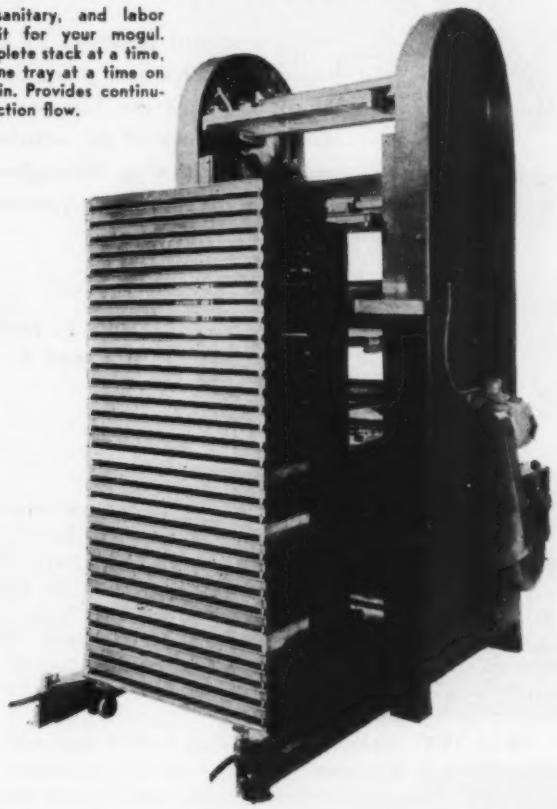
A safe, sanitary, and labor saving unit for your mogul. Takes complete stack at a time, deposits one tray at a time on mogul chain. Provides continuous production flow.



• **CURRIE AUTOMATIC STARCH TRAY STACKER**

Will give you increased production, elimination of hand stacking, reduced tray breakage, and improved sanitation. Can be used with Bausman, National, Greer, or any other type system.

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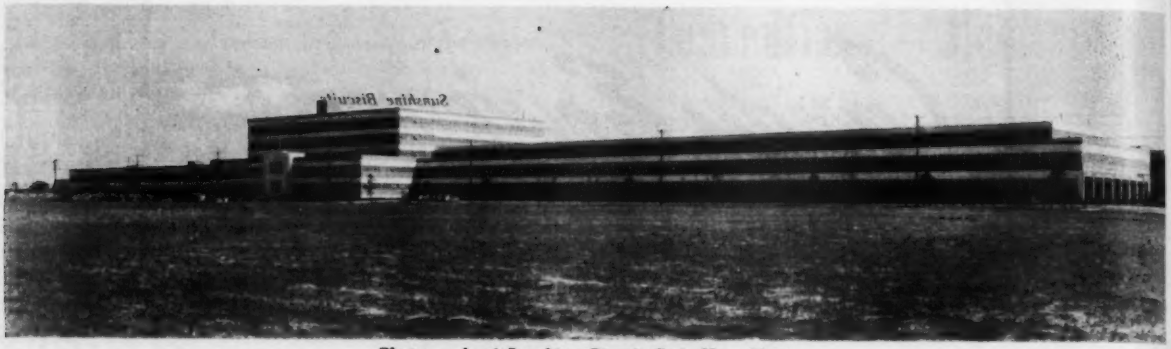
Chicago Office: 9411 Central Park, Skokie



Photograph of Sunshine Biscuit Co.'s New Plant.

SUNSHINE'S NEW MODERN HOME

Planned and designed by their own engineering staff, the new Kansas City, Kansas, plant houses the latest developments for the manufacture of the Company's candy and biscuit items. An outstanding feature of the multi-million dollar building is its lighting and air-conditioning throughout. Working with Sunshine staff engineers were representatives of the Dravo Corporation.

By M. C. HALEY, B. B. REILLY and P. C. STEPHEN

DESIGNED by their own Engineering Department. the new ultra-modern plant of Sunshine Biscuits, is symbolic, for it is flooded with light. The new building has five floors in the center section, is 1200 feet in length, and has 2000 metal frame windows containing 7000 panes of glass. Each pane is glare-proof and heat-absorbing, a unique and practical feature, since the plant is completely air-conditioned and no windows need to be opened for ventilating.

About 1200 employees are at work in this new structure which is equipped with a completely automatic combination air conditioning, cooling, and heating system. This system was designed not only to control the temperature and humidity for the employee's comfort but also for production control on the various manufacturing processes.

The most sanitary conditions obtainable were designed into this building. For example, all the air in the building is constantly filtered where production or office space is involved. The inside walls are faced with glazed tile which is easy to clean and the ceiling and columns are coated with a high gloss white enamel paint.

The ductwork that distributes air from the heating and conditioning units throughout the plant is fabricated entirely of aluminum. Fifty tons of sheet aluminum were used for the ductwork, aluminum being readily available at the time of construction.

Many unusual engineering features were designed into the air conditioning, cooling and heating systems by Dravo Corporation, Pittsburgh, who supervised and installed all the mechanical equipment. Probably the outstanding feature is the way cool well water is used efficiently in the cooling and air conditioning systems. There are several basic functions for each of these systems. They are:

1. **Comfort Air Conditioning (General Offices, Cafeteria, etc.); Year 'Round 72° to 78° F; 50% Relative Humidity.**
2. **Air Conditioning for Manufacturing Processes (Production Area of Plant); Year**

'Round Vary from 65° F. at 40% RH to 82° F; 50% Relative Humidity.

3. **Cold Storage Air Conditioning (Raw Materials for Production); Year 'Round 20°, 35°, 45°, and 60° F.**
4. **Humidification for Manufacturing Processes; Year 'Round 80° F. 80% Relative Humidity.**

The 54-degree F. well water is pumped from four 90-foot gravel-packed wells, which are adjacent to the main building, to a combined pump house-filter plant located on the west end of the property. Two Proquip Iron Removal Units, manufactured by Walker Process Equipment, Inc., are installed to reduce the iron content of the well water to .3 ppm. The process consists of spraying the well water over finely ground anthracite coal at the top of two vertical concrete filter tanks 19 feet in diameter and 11 feet high. After the water has passed through the filter by gravity it is then stored in a 70,000-gallon concrete tank located under the filter plant. The iron content of the water is high and in a normal eight hour day, 235 pounds of iron are removed. Without iron removal, the water would be unusable in cooling coils and condensers.

Three DeLaval centrifugal booster pumps, with rated capacities of 950, 1150 and 1350 gallons-per-minute, are then employed to force the water into the well-water circulating system in the main building.

The booster pumps are controlled by an Automatic Control Company special pressure-actuated control to start and stop the pumps in sequence to simulate the effect of a stand-pipe and to give volume control as the demands for water change.

The pumps are primed continually and automatically, using electrode type controls with the vacuum being formed by a Nash vacuum pump with an ejector, water-pressure operated, as a standby.

About 3000 gallons of well water flow each minute through the many miles of piping in the well-water circulating conditioning system. This is enough water to supply a city of 35,000 people. The treated well water, without further refrigeration, is used as the cooling agent for most of the comfort air conditioned spaces, a load of 700 tons of refrigeration.

In addition to serving as the direct cooling agent in the comfort air conditioning systems, the well water has other uses. In the basement of the main building there is a 30,000-gallon concrete reservoir which supplies the necessary water for the condensers in the main and auxiliary water chillers. This reservoir is supplied from the well-water return line by pneumatically-operated valves actuated by two floated level controls in the reservoir. Between the reservoir and the return well water line there is a bypass set to bleed 100 GPM from the well water line so that at least one of the booster pumps will be in continuous operation. This insures filling the condenser water reservoir at such times as the coil cooling requirements might be low. Conversely, a high level overflow in the reservoir allows drainage to the sewer when the condenser water requirements are less than what is needed for the well water cooling coils.

The two 350-ton York compressors can cool 865 gallons of ethylene glycol brine per minute from 38 degrees to 30 degrees F. The compressors are used in conjunction with the cooling cycle for the ethylene glycol brine

Booster Pumps for well-water system. Fire pump at right.

View of one of the rooms for drying starch trays.

Two Dravo heaters keep liquid sugar and corn syrup at correct temperature.

Filtered conditioned air through large duct in candy department.

Filtered air through this duct serves the dough cutting department.

Roof ponding for evaporative cooling. Excess well water makes 3-inch lake.

used in the chilled water system. The two condensers are supplied with well water from the 30,000-gallon reservoir by two DeLaval 1100-GPM pumps delivering against a 25-foot head and driven by 10-HP motors. The well water is also used for cooling in the auxiliary condensers for the cold storage room air coolers by a 50-GPM pump.

Freon-11 is employed as the refrigerant in the main chillers. Their 300-HP General Electric synchronous compressor motors are equipped with speed increaser gears. Three 1000-GPM pumps driven by 30-HP motors supply the chilled brine piping system against a 95-foot head. All chilled brine piping is insulated with ice water thick cork and the brine cooling units are insulated with two-inch cork and asbestos cement finish.

The well water stored in the 70,000-gallon reservoir under the pump-filter plant is also used as a stand-by water supply for the fire pump which is connected to the stand-pipe and sprinkler system. In order to guarantee an available water supply for the automatic fire pump, the booster pump suction line extends down into the reservoir to just the 28,000-gallon level. This leaves the balance of 42,000 gallons of well water available for immediate use in case of a fire. The controls are so arranged that the booster pumps are automatically de-energized when the fire pump starts operating. This gives further assurance of additional water in the reservoir in case of an emergency. The fire pump is driven by a 75-HP motor and is rated at 1000-GPM against a 230-foot head.

Another important function of this well water is as a cooling agent on the flat roof of the main building.

M. C. Haley, Chief Architect and Construction Engineer—Sunshine Biscuits, Inc., Dayton, Ohio

B. B. Reilly, Manager, Air Conditioning Department—Dravo Corporation, Pittsburgh, Pennsylvania

P. C. Stephen, Sales Engineer, Cleveland Office—Dravo Corporation

This "lake", approximately three inches in depth, has a storage capacity of about 225,000 gallons. This method of evaporative cooling is particularly practical for reducing the temperature on the large roof area over the main building.

The availability of natural gas gave Sunshine Biscuit's management a very economical fuel for space and production heating. It was decided to use 33 direct-fired Dravo "Counterflo" warm air space heaters. Because these heaters could also be fired by oil, 27 units were equipped with combination burners so that conversion in an emergency could be made with no delay. This would permit the use of gas entirely for baking in event of temporary curtailment. The stand-by fuel oil is stored in a 20,000-gallon tank outdoors.

It is estimated that the use of these direct-fired space heaters instead of a conventional boiler plant and steam distribution for the heating application, resulted in a very substantial dollars-and-cents saving. The heating and cooling requirements for this building presented a challenging engineering problem, for the various space design temperatures range from 20 degrees to 140 degrees F. This does not include the process heat required for baking and cooking.

A pneumatic system of automatic controls has been

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Actual operating figures prove that Burrell candy belts wear longer, perform better and give the finest results. These are the hardest working and finest belts obtainable and because of their quality will give complete satisfaction and make possible sizable savings. This combination of facts is worth investigating. See what a real job Burrell belts, recommendations and service can do for you no matter what your candy belting problem might be.

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- ★ Plasticoat Cooling Tunnel Belting and Plaques—Single Texture, Heavy Duty or Very Thin Thintex Plaques
- ★ Crack-less Glazed Enrober Belting
- ★ White Glazed Enrober Belting Double Texture—Single Texture; Double Coated
- ★ Caramel Cutter Boards and Belts
- ★ Bottomer Belts (Endless—Treated and Untreated)
- ★ Feed Belts (Endless—Treated and Untreated)
- ★ Packing Table Belting (Treated and Untreated)
- ★ Innerwoven Conveyor Belting
- ★ Batch Roller Belts (Patented)
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- ★ Vee Belts
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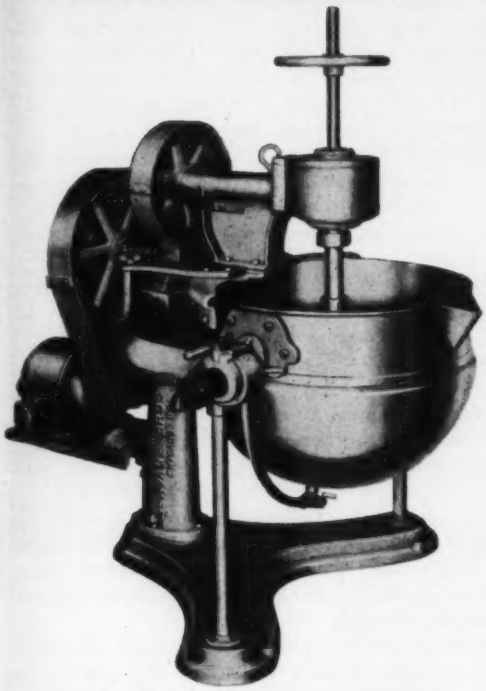

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Model F-6

Years of Experience Has Led to The Production of This Machine

The Savage Patent Tilting Mixer is a marvel of strength, durability and convenience. **Now constructed with bevel gears totally enclosed.** Unequalled in its adaptation to the requirements of the candy maker. Time and labor saving. It is standard of quality and performance for the Candy trade.

The Savage Patent Tilting Mixer

is the very best steam kettle and mixer made for the manufacture of caramel, fudge, nougat and products that will pour. Also recommended for heavy stiff batches such as Jap cocoanut and cocoanut mass.

Made in following sizes:

35 gal. with copper kettle
50 gal. with copper or stainless kettle

Further information and prices on request

Tilted position with improved agitator. Clearance sufficient for thermometer.

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provided for the many systems described. In order to simplify and standardize the control systems for the diverse requirements, it was decided that all control requirements could be analyzed into five functions which, in various combinations, would satisfy the needs of any system. These functions are as follows:

Function No. 1 provides for the control of outdoor and recirculating dampers through an electro-pneumatic switch connected to the fan motor, a gradual switch to position the dampers when the fan is in operation, and a safety thermostat to prevent freezing of water coils during freezing weather.

Function No. 2 provides a direct-acting room thermostat which controls a reverse-acting valve in the water supply to the well-water cooling coils.

Function No. 3 provides a reverse-acting type room thermostat to operate a three-way valve controlling the supply of chilled brine to the cooling coils.

Function No. 4 provides a reverse-acting humidistat which, by working through a direct-acting cumulator, operates a three-way valve to increase the flow of chilled brine through the cooling coil when dehumidification is required.

Function No. 5 provides a reverse-acting gas valve or the electro-pneumatic switch on a space heater to provide reheat when reheat is necessary due to humidity control requirements.

The general offices which occupy about 13,200 square feet of the first floor are kept at 78 degrees F. in the summer and 72 degrees F. in the winter at not to exceed 50% relative humidity. The equipment for heating and air conditioning this office area is located in a basement mechanical room. A 12,000-CFM fan discharges conditioned or heated air into a system of ductwork which is concealed behind acoustical tile. The air is then distributed into the offices through ceiling diffusers.

A Dravo heater furnishes the necessary high temperature space heating for each of the three storage rooms in the basement of the building. Temperatures of 100, 115, and 120 degrees F. are required in each room to keep such items as syrups, lard and other ingredients fluid so that they can be pumped through piping to the manufacturing areas. One Dravo space heater, operating on 100 per cent recirculated air, maintains the desired temperature for the ingredients stored in each room.

On the second floor there are three rooms for drying starch trays and each of these rooms is kept at 140 degrees F. by individual Dravo heaters, each having a capacity of 400,000 BTU's per hour. Air is discharged into the rooms at high velocity through duct openings at floor level. A return air duct to the heaters runs overhead on the centerline of each room.

Another large basement storage room is kept at 60 degrees F. by four air cooling units discharging into aluminum ductwork. Cellophane storage, occupying about 2800 square feet, is constantly kept at 70 degrees F. with 35% relative humidity by two individual ceiling-mounted air cooling units equipped with steam reheaters to control the humidity.

There were several additional economical advantages in using direct-fired space heaters in this plant. The problem of carrying a large stock of replacement spare parts was simplified as all the space heaters are of the

CHOCOLATE MIXER EFFICIENCY

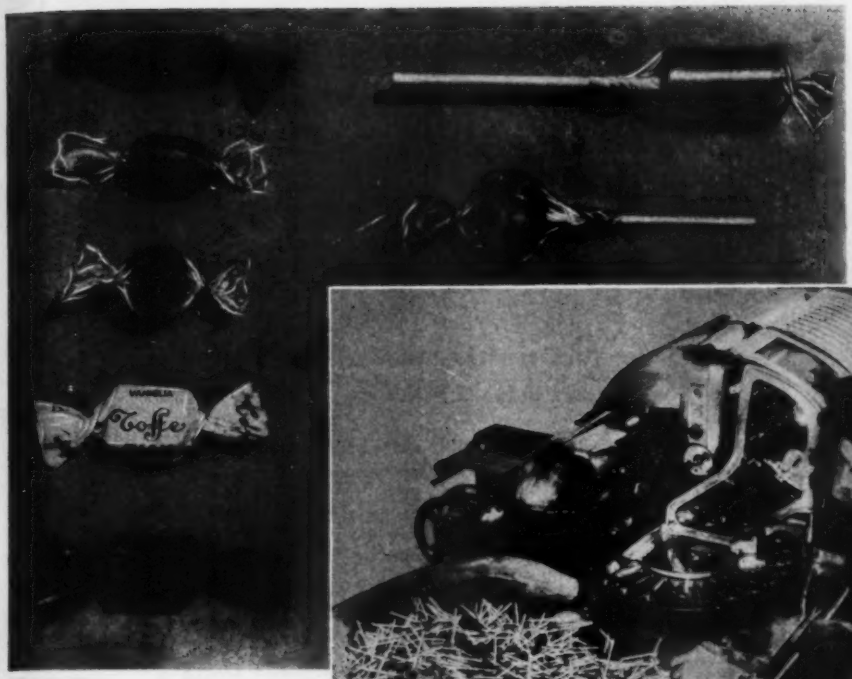
If you're looking for faster melting, faster mixing, and faster development of flavor . . . if you want simplified, dependable operation . . . if you want more efficient, less costly chocolate mixing, get all the facts about the Stehling Horizontal Cylindrical Chocolate Mixer today.

Made in three sizes to meet every requirement and to the most exacting standards for longest, continuous, most economical service. If you want top efficiency in chocolate mixers, *make sure it's Stehling and be sure!*

CHAS. H. STEHLING CO.

1303 N. FOURTH STREET • MILWAUKEE 12, WISC.

Factory Representative: R. S. and G. B. Hislop
1517 Grange Ave., Racine, Wisc.



AMF Rose I.S.T. Twist Wrap Combination Machine wrapping lollipops.

Wrap Both

CANDY PIECES AND POPS *on one machine*

STEP UP YOUR SALES with attractive fan tails on your irregular shaped candy pieces AND lollipops. The AMF Rose I.S.T. Twist Wrap Combination Machine wraps BOTH. It twist wraps up to 160 irregular shaped pieces per minute with eye-catching fan tails at both ends... or up to 110 pops per minute with fan tail tops and heat sealing along the stick.

INDIVIDUALLY WRAPPED CANDIES will increase impulse buying. Colorful wraps seal out dirt and moisture and protect against handling, yet produce attractive, appetizing displays with brand identification on each piece.

WRITE Mr. B. L. Ahrens for complete specifications, price and delivery on the Rose I.S.T. Twist Wrap Combination Machine and Horizontal Automatic Batch Roller and other Rose Candy Machines.

AMF DOES IT BETTER—*AUTOMATICALLY!* SINCE 1900

AMERICAN MACHINE & FOUNDRY COMPANY, 511 Fifth Ave., New York 17, N. Y.
West Coast Sales & Service Headquarters, 1258 Mission Street, San Francisco 3, California
Southwest Sales & Service Headquarters, 2106 Irving Boulevard, Dallas 2, Texas

YOU CAN NEATLY **PACKAGE 2 UNITS PER SECOND!**

...On this Modern
HIGH SPEED WRAPPER

FOR THE ARMED SERVICES
We are contributing to the nation's defense program by providing a large part of our increased production facilities for building precision armaments. Civilian orders are filled on a reasonable time basis only.

Write for illustrated brochure.

Wraps single or multiple units per package with equal ease and speed — no matter how irregular the shape — how fragile the product.

Your production increases rapidly with the Campbell Wrapper. Dependent upon the product, this amazing machine wraps from 80 to 150 units per minute — *with some users reporting as high as 180!* Highly important, too, it produces a neat, square-cornered package with irresistible sales appeal . . . Labels are accurately spotted and product is not crushed, broken or dented — because it is "float wrapped". In most cases, only one operator to feed and one to pack are required. Machine uses wrap materials of all types, such as glassines, cellophanes, foils, etc., for use with or without stiffeners, as desired. It comes with Straight, L or Hopper type feed.

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WRAPPER
HUDSON-SHARP MACHINE CO. • GREEN BAY, WIS.
Manufacturers of Aniline and Gravure Presses, Folders, Interfolders, Laminators, Workers, Embossers, Slitters, Sheeters, Roll Winders, Packaging Machines, Crepers and Tissue Converting Units

New York Office: 55 W. 42nd St.

IT'S THE NEW
FREIMAN
Hand Roll
Cream
Depositor
For

The average candy shop. Makes uniform centers. Great labor saver *and at a price you can afford.*

Write now for free information

CONFECTION MACHINE SALES CO.
27 W. Van Buren, Chicago

Name .....
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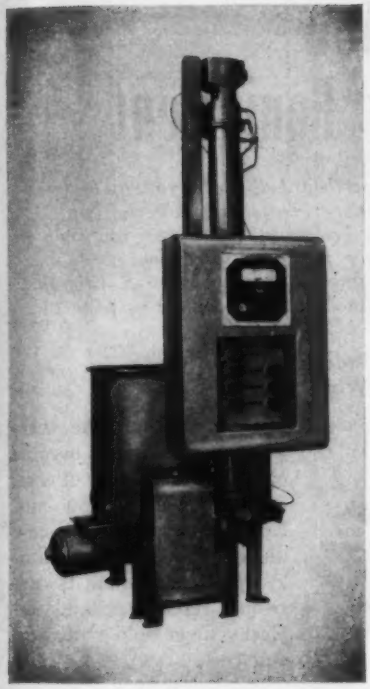
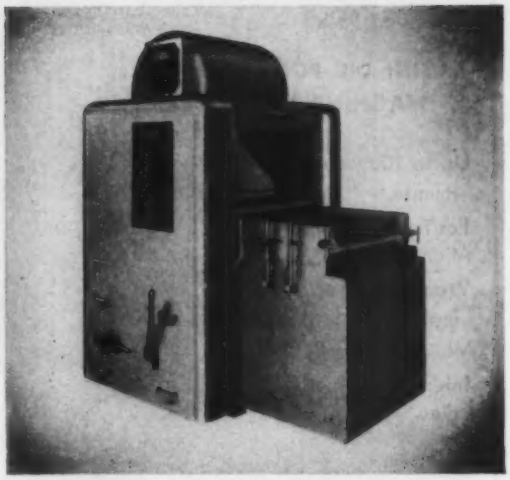
same design and manufacture. Thus, by standardizing on one style heater, the annual expense for maintenance was reduced. Space heaters also give the added advantage of a de-centralized heating system which reduces the risk of a major breakdown. This type of heating system confines any maintenance to a limited area, thus assuring continuous production. Another advantage to using direct-fired space heaters in this plant is that seasonal process manufacturing can be accomplished by using only a selected number of the heaters installed if desired. This can result in a substantial saving in operating expense because the input fuel requirement is reduced directly with load requirement, there being practically no distribution or standby losses.

Several of the space heaters were designed into the air conditioning system as an integral part and, in such cases, the standard internal fans of the heaters were removed because the air conditioning system fans furnish the necessary air. One exception to this is in the cafeteria where a 12,000-CFM fan (within the heater) is used to move the cool and heated air in the duct system. Each heater is designed with a stainless steel combustion chamber which enables rapid transfer of heat to the air being heated. The use of stainless steel also eliminates the problem of corrosion from moisture-laden air passing over the outside heating surface of the combustion chamber during the cooling cycle. In the opinion of the authors, all of these engineered features designed into the air conditioning, heating and cooling systems are in no small way responsible for this new Sunshine Biscuits Building being considered: "One of the most modern plants of its kind in the world".

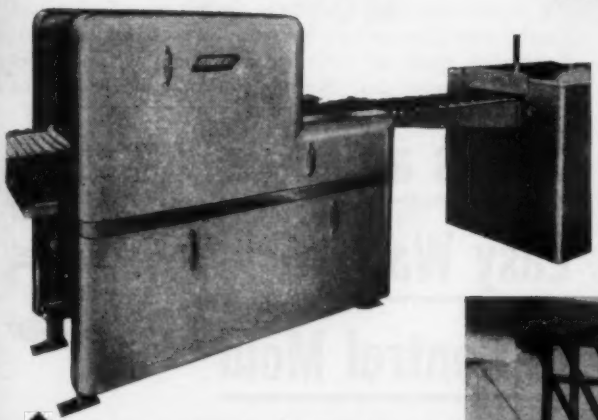


GREER COATERS for heavy duty usage at minimum maintenance. Produces smoother, more uniform coating . . . higher gloss . . . longer shelf life. Recognized as the world's standard for high quality, high production coating.

CHOCOLATE MELTING AND TEMPERING KETTLES available in several sizes, 500 to 10,000 pounds capacity, mild or stainless steel, water-jacketed. Even heat transfer to every square inch. Sanitary, rugged.



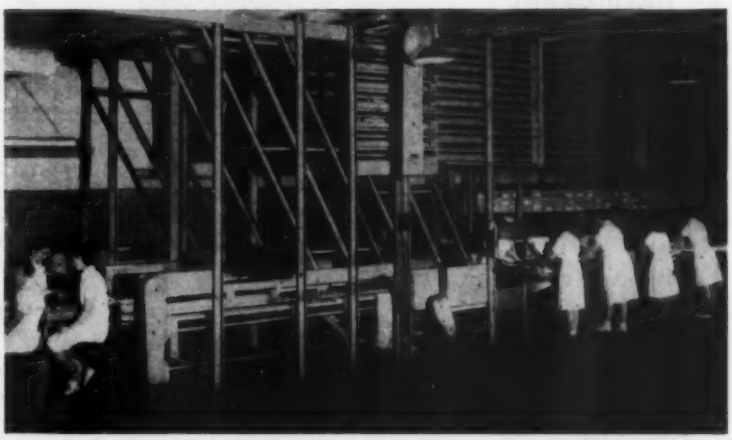
Speed Production with GREER Equipment



OTHER EQUIPMENT INCLUDES: Feeders, Bottomers, Refrigerated Cold Slabs, Cooling Columns, Pumps, Pumping Systems, 90° and 180° Turntables — 16″ to 48″ belt widths, Automatic Belt Guiders and Automatic Moulding Plants.

GREER 16″ COATERS feature all sanitary construction and variable speed drive for use with plaques or cooling tunnel. The Greer Coater, which separates into two hinged units for convenient cleaning or changeover, turns out high quality candies at a rate faster than any other coater available.

GREER MULTI-TIER conveyor systems for continuous processing-in-transit — for cooling, freezing, heating, curing, drying and conditioning.



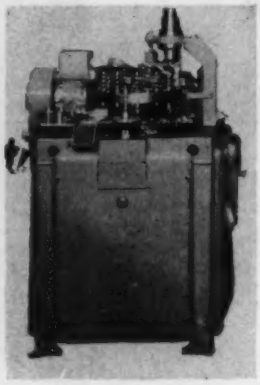
J. W. GREER COMPANY

119 WINDSOR STREET, CAMBRIDGE 39, MASSACHUSETTS

Sales Engineering offices: New York, N. Y., Chicago, Ill., San Francisco, Calif.

GREER

LATINI DIE POP MACHINE



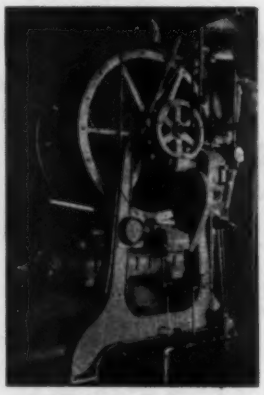
Up to 200 pops per minute.

Positive stick insertion.

Wood, paper or cellophane sticks.

Weight control.

Interchangeable dies.



HOHBERGER CONTINUOUS CREAM MACHINE

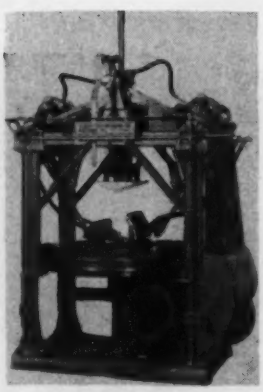
Up to 2000 pounds per hour.

Requires only one operator.

Regular and straight sugar fondants.

Fondant at its best —continuously.

BERKS HARD CANDY BATCH MIXER



Saves 60% labor and floor space

Uniformly incorporates color, flavor, and acid with up to 10% scrap.

Eliminates cold slabs.

Mixing time on clear goods 5-7 minutes, pulled goods 2-3 minutes.

Representative:

John Sheffman, Inc.

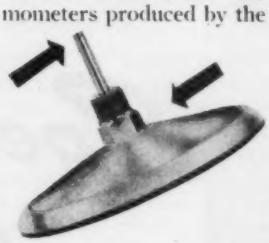
152 West 42 Street — New York 36, N. Y.

What's New in Candy Equipment

The products described help keep you up-to-date on new confectionery equipment, materials of all types. The items below are coded for your convenience. For any further information, write to THE MANUFACTURING CONFECTIONER, *9 S. Clinton St., Chicago 6, Illinois. Use the coupon on page 28.*

Dial Thermometer Produced by Stainless Steel Weld

The all stainless steel, dial type, bi-metallic thermometers produced by the new welding process become one sturdy assembly of case, stem and connection nut. Like spot welding, no new metal is added. The stainless steel retains all its corrosion resistance, and replaces silver solder at stem and case.



Freedom from breakage and release of contaminating liquids and high corrosion resistance will eliminate costly separable sockets for many process applications. Increased speed of response and high accuracy will result. Because any thermometer may be broken or

Here's an Easy Way to Control Mold

IF YOU have a recurring mold problem, here is a way to get you out of that difficulty without too much trouble or expense—swab your walls with Oakite Bactericide. This fully patented fungicidal agent gives you split-second bactericidal action . . . destroys more microorganisms *faster*. It is easy to use in warm or cold water. And Oakite Bactericide is most economical . . . small concentrations give you plenty of killing power.

Free Booklet tells you the whole story. For your copy, drop a line today to Oakite Products, Inc., 36C Rector St., New York 6, N. Y. No obligation.

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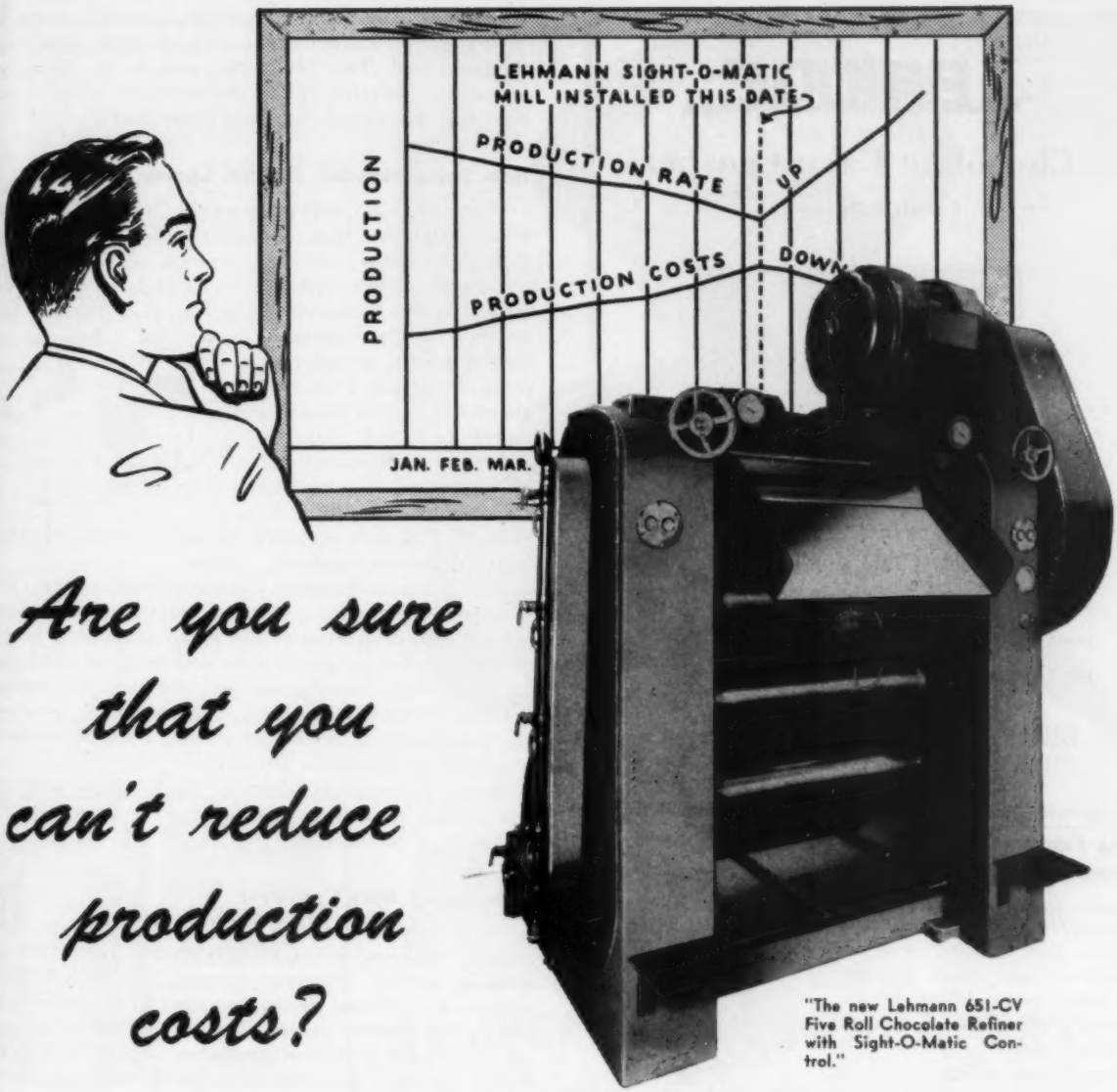


Are you sure that you can't reduce production costs?

"The new Lehmann 651-CV Five Roll Chocolate Refiner with Sight-O-Matic Control."

Manufacturing executives should be concerned with rising production costs today. If more efficient machinery can reduce costs —this is the time to get it.

In these days of unprecedented prosperity ("expanding economy" they call it) expanding costs may not seem so dangerous. But what happens when this "expanding economy" becomes a "contracting economy"? Is it not wise in prosperous times to get operating costs down to bed-rock and be prepared for times that are not so prosperous?

In studying costs, consider your chocolate refiners. Wouldn't the newer Lehmann Sight-O-Matic 651-CV Five Roll Chocolate Refiner cut your costs substantially? By taking the guesswork out of refiner operation they give your foremen and operators a chance to do a better job for you. With a Sight-O-Matic refiner, a fair operator gives excellent results and a good operator gives results that you would not believe possible until you have seen them.

Take advantage of this modern chocolate refiner and improved processing technique.

LEHMANN

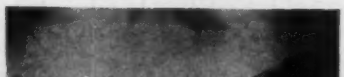
J. M. LEHMANN COMPANY, Inc.

MAIN OFFICE AND FACTORY: 546 NEW YORK AVE., LYNDHURST, N. J.

BRIDGE

Chocolate Cake Crusher

(with Conveyor)



Breaks chocolate into small portions at the rate of 10,000 lbs. per hr. Elevated belt conveyor automatically feeds chocolate into melting kettle.

BRIDGE FOOD MACHINERY CO.
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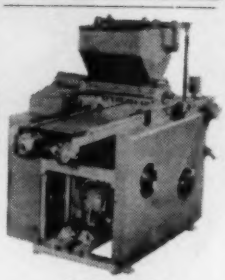
The Famous Racine Depositor meets all your forming needs

Various spacings handle chocolate, creams, marshmallows, etc., with or without fruits or nuts, for depositing into molds, paper cups, or trays, plaques or belts. Operates without pumps.

Now be sure of absolute uniformity in size and weight.

Send for new circular.



TWO MODELS
JUNIOR 16" SENIOR 32"

VACUUM CANDY MACHINERY CO.
RACINE CONFECTIONERS' MACHINERY CO.
15 PARK ROW, NEW YORK 38, N.Y.

knocked off calibration with rough treatment, a special "Zeroing" or recalibration device is available with these thermometers. This device also permits the thermometer to be calibrated to hair-line accuracy, in the working range, for special processes. *Code M4B52.*

New Pump Handles Difficult Chores

A revolutionary new pump readily transfers products which heretofore have been considered difficult or impossible to pump.

Pumping action is accomplished by two fluid pistons. As shown in the diagram, a high pressure pump (A) pumps hydraulic fluid (B) alternately to and from cylinders (C) and (D). A four-way hydraulic valve (E), actuated by a solenoid (T), controls the fluid direction. Cylinders are made of stainless steel, or other materials where required.

This pump is designed to handle slurries, very viscous pastes, abrasive or corrosive fluids, and suspended solids without damage to the pump. Pumping action is positive, but so gentle that delicate food products, such as whole strawberries and cherries, are moved without crushing or injury. Where contact between the pumping medium and the product must be avoided, a suitable membrane is provided.

Simple and sanitary, there are no bearings, mechanical pistons, packing glands, valves or impellers in the cylinders. *Code M4C52.*

New Heavy Duty Conveyor

Extra light and of high capacity, the new type conveyor is designed to handle heavy loads. This 12 inch wide heavy duty conveyor is made in 5 and 10 foot sections with 45 and 90 degree curves to suit individual needs. Ball-bearing wheels 2 inches in diameter and ⅝ of an inch wide are spaced on slightly less than 3-inch centers. Available with welded-on connectors which are interconnectable with the majority of other wheel conveyors of the same size. It can also be supplied with removable type connectors.

Extra strength and durability is provided by use of tension members without the addition of unnecessary

CHOCOLATE MOULDS

welded REPAIRED reinforced

metal coating-bar-hollow moulds

All of our work is unconditionally guaranteed

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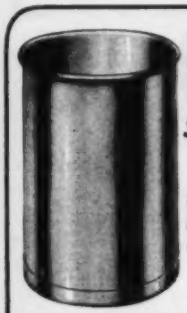
• Distinct Packaging for Norris One-Ten Line

Norris Candy Company has introduced a new line of candies named One-Ten for their set retail price of $1.10. In planning the line, Norris made a nationwide survey to determine the most popular pieces of candy selected at retail outlets. As constituted from the survey, the new line includes one package of each of the leading favorites. Included are chocolate covered almonds, butter almond toffee, coated whole brazil nuts, marshmallows and pecans, butter cream pecans, selected soft centers and Norris' chocolate pecan Penguins. All pieces are entirely new creations except for the Penguins. The line is packaged in nearly identical oblong boxes of tan and chocolate brown covered with cellophane. The boxes come packed in a display carton ready to set up on the dealer's counter, or, with the shipping case, as a floor stand.



STANcase EQUIPMENT

STAINLESS STEEL
DRUMS

MODEL 30--30 GAL.
MODEL 55--55 GAL.
(Covers available)

ECONOMY EQUIPMENT

RUGGEDLY CONSTRUCTED FOR LIFE TIME WEAR.
FULLY APPROVED BY HEALTH AUTHORITIES.

Manufactured by
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CONVEYORS

Corrigan bulk dry sugar handling and storage systems convey sugar from unloading point to storage and from storage to production.

Improve production facilities
Lower operation costs

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Model F-1 Temperature Indicator. Flexible tubing for remote reading or rigid stem for direct mounting 5½" dial. From $22. Adjustable electrical alarm contacts slightly higher.

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Are at Work for Industry . . .

Aiding Efficiency: Production runs smoother when operating temperatures are indicated on Auto-Lite dial-type thermometers.

Stopping Waste: Spoilage of expensive materials is avoided through systematic temperature observation . . . this safeguard is made easy with Auto-Lite high-visiblity dials and wide choice of instrument styles. Dial ranges from minus 60°F. to 750°F.

Increasing Protection: Auto-Lite's unique manufacturing facilities keep instrument cost low . . . permit plant-wide temperature indication for processing operations. Send for catalog.

THE ELECTRIC AUTO-LITE COMPANY
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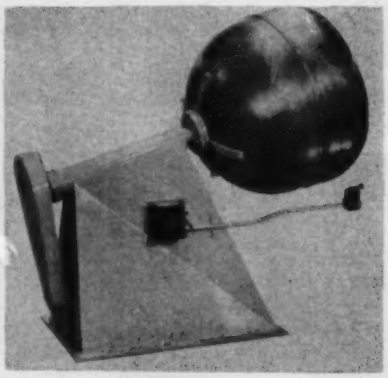
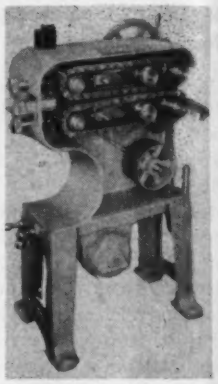


LATINI REVOLVING PAN

Heavy-gauge copper, machine-spun bowl. Convenient on-off switch with overload switch. Shaft mounted on self-aligning ball bearings. Sanitary. Stand enclosed, easily cleaned.

HOHBERGER CONTINUOUS CUTTER

Positive sealing on filled pieces. Production up to 150 feet per minute. Forms pillows, straws, and waffles. Variable speed drive enables spinner to operate at maximum.

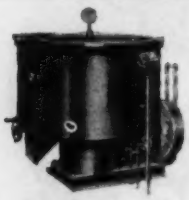


Representative:

John Sheffman, Inc.

152 West 42 Street New York 36, N. Y.

ROTARY CONCHES "R/b 2-4-8-16"



The Rotary Conche While Maintaining the Basic Characteristics of the Longitudinal Gives the Same Highly Qualitative Results at 50% of the Time.

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85c STARCH TRAYS

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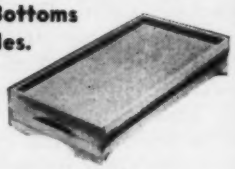
Hardwood Ends and Sides.



Solid Wood Glued Bottoms Nailed—Lock Corner and Water-proof Glued.

also: Dipping Boards—Starch Tray Dollies
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Mould Boards
And All Other Affiliated Wood Products

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with **IDEAL HI-SPEED WRAPPING MACHINE**

Speed that's always dependable—Safety that can be counted on—maximum production at least cost—that's the Ideal Special Caramel Wrapping Machine!

Only 2 personnel required for this entirely automatic operation.

Write today for FREE Brochures.

Established 1906

IDEAL WRAPPING MACHINE COMPANY

MIDDLETOWN, NEW YORK U. S. A.

weight . . . the weight of a 10 foot section is only 69 pounds. The standard arrangement is with the wheels set above the side channels.

Actual tests have proved that with a load of 2000 pounds distributed over the surface of the conveyor supported on only two stands, one at each end, there is less than ⅛ of an inch deflection at the center, making the equipment practical for heavp loads without extra supports or stands.

The side channel members are joined by inverted angles welded to both side channels. There is one at each end and one in the center on 10 foot section. This arrangement of inverted angles receives the adjustable stands and also strengthens the frame. *Code M4A52.*

Circle Code Numbers and Mail Coupon for Literature on Any Item Discussed in This Section to

The Manufacturing Confectioner
9 S. Clinton St. Chicago 6, Ill.

M4B52 M4C52 M4A52

Name .....

Firm .....

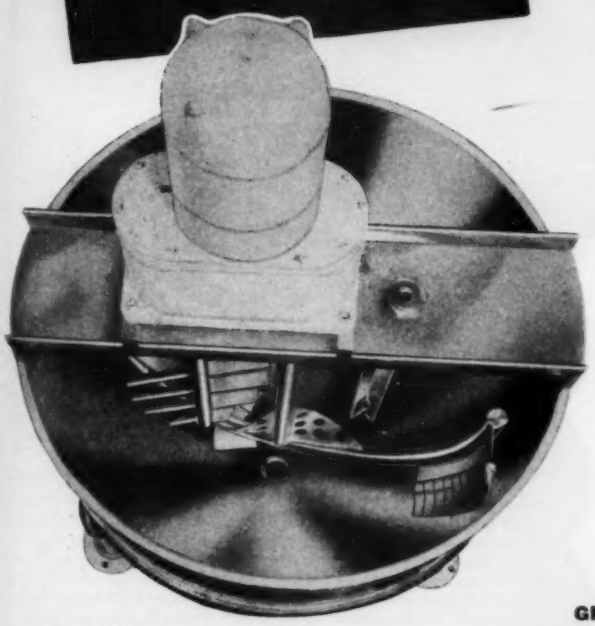
Address .....

City ..... **Zone** ..... **State** .....

test it yourself...

right in your own plant without obligation!

4 in 1 *Special*
Model TA-RA
VARIABLE SPEED DRIVE
AGITATOR KETTLE



Interior View with Agitator Parts in Place

SEE FOR YOURSELF HOW THE 4-WAY VERSATILITY OF THIS PRECISION MIXER CAN SAVE YOU MONEY

Now you no longer need depend on someone else's say-so as to what you need in mixing equipment. Simply tell us to send you a 4-in-1 Special GROEN TA-RA Stainless Steel Steam Jacketed Agitator at NO CHARGE (except freight to and from Chicago or next destination.) Hook it up and do your own experimenting . . . observe to your own satisfaction on your own work exactly what speeds you need; what type of mixing your products require and precisely what elements of equipment you need in your mixing kettles. Operate the unit through the four stages outlined below and you'll have your answers. Meanwhile, note the variation in speed; the excellence of mixing; the high-speed heating from the Rota-Therm jacket; the demountable couplings for instant removal of entire agitator assembly; and the amazing versatility as you work the unit through these four steps:

1. As a standard "TA Model" twin-shaft unit with variable speed drive. Affords a gentle folding or kneading action on heavy viscous materials when agitator is operated in lower speed ranges to a violent whipping action in high speed ranges.

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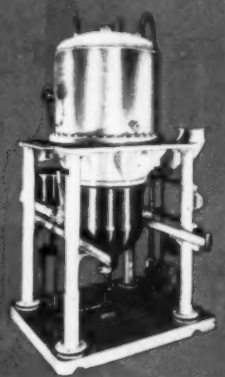

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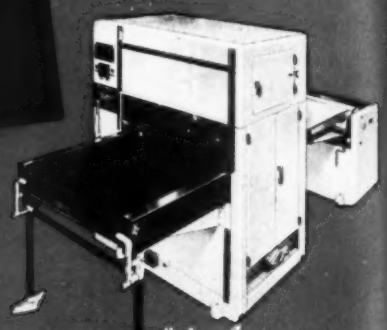

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SUGAR HANDLING METHODS

at the Washington Chocolate Company

CARTONS imprinted with "A Case of Good Judgment" —to candy, ice cream and cookie manufacturers— signify a product of the Washington Chocolate Company of Seattle, the only chocolate processing firm in the northwest. Good judgment symbolizes choice ingredients, top product engineering and highly mechanized processes for the production of a superior quality. A newer application was the installation of pneumatic equipment for a pipeline handling of sugar.

"We abandoned the bag method for three reasons," Mr. Paul J. Zeman, plant superintendent stated. "Greater sanitation, labor savings and a better price."

The changeover, started a few months ago, was completed in April when trial transport was made. Revolutionary was the greater sanitation which the method made possible. Sugar dust no longer settled throughout the factory. Sifting, leakage, spillage and moisture condensation with resulting glue-like adhesion had been practically eliminated. Employee's uniforms soiled less readily and cleanup time was speeded up.

To fully understand the improvement, one should tour the plant, an attractively landscaped, two-story building at 528 Pontius Avenue. From an alley approach, one notes a new tower jutting 30 feet from street level. It has an intake pipe, measuring about eight inches in diameter, which starts at a truck height.

Corrugated piping from a specially-adapted sugar truck is linked to the intake pipe. Airborne sugar, traveling from the truck, is deposited in a separator device at the upper part of the tower. About 30 minutes time is required for a "fill."

A garner bin within the tower terminates in a cone with dual outlet. The bin, made of metal, measures eight feet in diameter and extends 20 feet into the tower. Vertically-placed, pressure-relief bags let out air as sugar settles in the bin, holding from 25,000 to 30,000 pounds.

"There is no chance for bin overflow," Mr. Zeman pointed out, "beceuse of automatic controls."

Push-buttons, blower devices and signal lights control all sugar handling for the entire plant. When fills reach a safety level, both a light flickers on and a horn is sounded. Likewise, when a reserve drops to a low point. a pair of Bindicators flash on—one in the office, the other in the factory—warning that the supply has dropped to an 8,000 pound point. Again at 5,000 pounds, another warning is flashed so that a truck delivery will be scheduled.

A further precaution—in the event immediate delivery cannot be made,—the Washington Chocolate Company installed an auxiliary hopper, powered by a ½ h.p. motor, which can receive bag sugar for uplift to the tower. The small unit stands four feet high and measures three feet square.

The entire system is synchronized. Dual motors, for instance, enable simultaneous feed to different parts of the plant. When one stops automatically, the other halts too. Blowers, powered by 7½ h.p. motors, produce a five-pound air-pressure for conveying sugar into pulverizer mill units. As a capacity mill-fill is reached, a pilot light flickers on. Coincidentally, a Tel-level device trips, halting the mill feeder. The feeder, in turn, stops the blower.

No running back and forth is required—a single attendant manipulates the entire mechanism. The system has cut down on labor, formerly required for handling, moving, lifting, ripping and dumping sacks, in the amount of half-a-man per year. Most significant, it has wholly eliminated the problem of contamination from human handling and rehandling.

Associated with bag handling, of course, was the factor of sugar loss. In a cost study, Mr. Zeman personally shook out a number of "empty bags" to determine the residual loss. Obviously, insistence upon labor's vigorous bag-shaking would have exceeded recovery savings. But he estimated about 25 to 50 pounds of sugar was lost from 100 bags through moisture condensation and deposition in bag seams, corners and crevices.

Elimination of bag costs, naturally, enabled the supplier to offer bulk industrial sugar at a lower rate to large-scale users—a figure averaging 15 cents a bag economy. In addition, Washington Chocolate Company gets a per-bag-credit against receptor installation costs.

The new system has helped the firm to solve still another chronic problem—warehouse limitations. Because of unpredictable deliveries of beans and sometimes sugar imports, the firm has to deal with warehouse gluts. Additional space was leased at a downtown site for this purpose.

"We use to pile sugar bags 1,000 pounds high," Mr. Zeman explained.

While height limitation facilitated manual handling, it wasted upper-room space. The sugar receptor, consequently, was designed to occupy ceiling and roofing space. Formerly wasted space, utilized in this manner, provided more area for bean storage, enabling the firm to coordinate warehousing at one point.

Bagwise, the receptor required 25% of the storage space on comparable sugar. In practice, the receptor cut warehouse requirements by two-thirds due to height limitation on bags. Related annoyances such as floor dampness, building dust and messiness from bag leakage also have been removed.

Mr. E. E. Hemrich, president who founded the firm in 1920, said, "we are very pleased with performance of the new system." Starting with little more than courage, Mr. Hemrich constantly adapted better methods to his growing organization which today occupies a 120x120 ft. building. The sugar-lift was an after thought in a long-range modernization program starting in 1947. At that time, plant capacity was doubled with the addition of $100,000 worth of new equipment.

Among changes in the revamped layout was the use of air transport for conveying cocoa beans and pulverized sugar. The method early proved itself the "cheapest

means of handling dry items." Why not adapt it to granulated sugar, Mr. Hemrich ventured.

Coincidentally, the firm was approached by the Amalgamated Sugar Company whose engineering department had completed a pilot distribution center in Seattle. Amalgamated also had adapted a Ford truck with special trailer into a miniature plant. The trailer was equipped with storage tanks for pneumatic delivery to individually-designed customer receptors.

Together, the sugar and chocolate company officials worked out details for pneumatic reception to meet needs peculiar to Washington Chocolate Company. Trial pering employees favoring the greater cleanliness and ease of formances in April were highly satisfactory to all, includhandling.

The sugar pipeline typically demonstrated the firm's receptivity to modernity. Other improvements during the four-year-plan have reached all departments with a corresponding betterment in working conditions for the 18 fulltime employees.

"Lately a Swiss-made Buhler machine was added for improved refining of chocolate paste. Other recent acquisitions include several Conche machines for improving under heat the sugar-liquor paste, preparatory to receiving additional butter. The resulting mixture is poured into 10-pound molds.

The product, air-cooled on two continuous conveyors, is completely solidified before it reaches the line end. The units then are packed, five deep, in special fiber board cartons marked, "A Case of Good Judgement" and are taken to a newly-modernized, temperature-controlled (60 deg. F.) storage room, measuring 60x120 ft.

The Washington Chocolate Company, in addition to having door-to-door deliveries throughout the northwest, exports to Alaskan and Philippine markets. Located in a prime dairy region, it also produces a high-quality milk chocolate and has patent rights on a caramel coating whose natural flavors make it a nationally-acclaimed product.

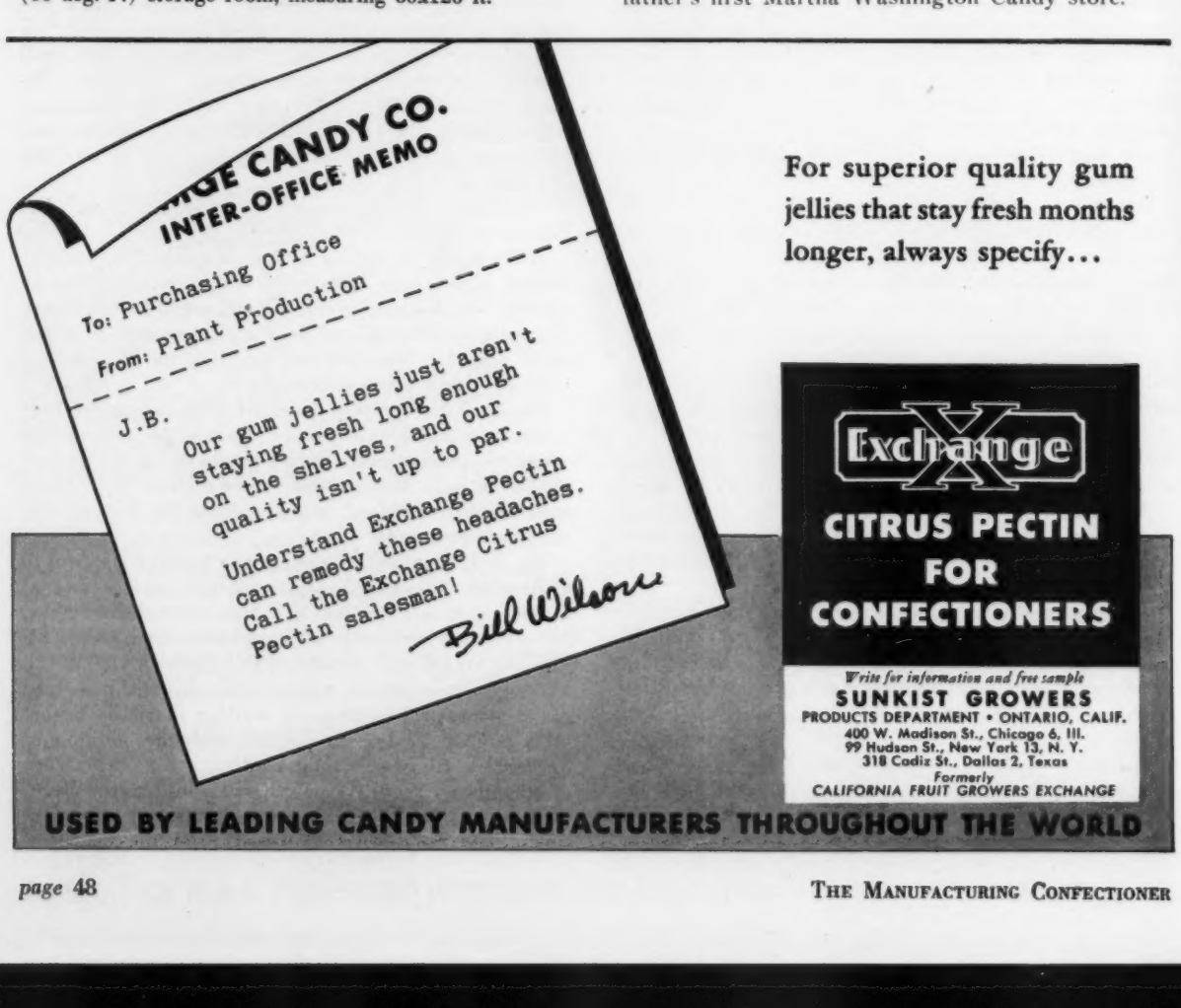
But the sugar pipeline is not a grand finale. Rather it is a link to future plans—the firm awaits arrival of a new nib-extracting machine which will further cut bean waste. Because of a growing population and an expanding candy industry, the company has plans for constructing a new factory on ground adjacent to the present plant. The pipeline then will extend its highly-sanitary services to the new unit, exemplifying further good judgment.

Candy Firm Founder's Son Dies in East

Jet D. Sheetz, only son of Elie Sheetz, founder of the Martha Washington Candies Company, died in his sleep at his home in Lancaster, Pa., March 9. Mr. Sheetz was 76 years old.

Up until his retirement several years ago he has been president of the Eastern Division of the company founded by his father. The name of "Jet" was given him because of the success of a small chocolate candy of the company's early line.

Although he had lived in Lancaster during the last 30 years, he still continued to maintain the family home in Washington, D. C., next door to his father's first Martha Washington Candy store.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The Manufacture of Dragees

(PAN GOODS)

By FRANK PERRY

THE manufacturing of dragees can be done by using little machinery as most of the work entails using only revolving pans. This may seem to be a simple process but it is a highly skilled job and the operator must have had a lot of experience in this kind of work to be able to produce good results. The success of the operator is dependent upon his knowledge of raw material and methods of handling it.

Pan work, or dragees, is so-named because it is done in revolving copper pans which are heated by steam. The idea is to coat a center with a thin layer of syrup, which upon evaporation leaves an even layer of dry sugar. This process is repeated until the required thickness of covering is attained.

There are three kinds of pan work. Soft panning is done by the cold method. Hard panning is done by the warm method. Rough panning is also done by the warm method.

For the manufacturing process, revolving pans are required, each pan having a separate motor. The pans are arranged in series of six units in order that only services of one skilled man and one or two girls are necessary. It is important that the speed of the revolving pan can be regulated because different kinds of goods require certain speeds or revolutions per minute.

The size and texture of the goods will determine the speed at which the pan must revolve. The average speed is 20 revolutions per minute. It is better if the pans can face the light so that the entire interior of the pan can be observed without difficulty. For certain kinds of pan work, heated revolving pans are used. Steam heated pans are not used so much today as it has been found that gas can be more easily regulated and the pans heated to the correct temperature.

The rooms in which the pans are located must be light, airy and dry. It is also important that the temperature remain constant, low relative humidity is important as dampness is the worst enemy in dragee work.

The drying room for the goods must be built according to the latest and best technical plans. Dry warm air must flow evenly to reach every part of the room so that the dragees dry correctly.

The department for boiling and preparing the syrups for the dragees must be separated from that of the pan room because the relative humidity of the pan room must be at the minimum. For the manufacture of different dragees, this information is very important, and must be carefully followed to get a perfectly finished product.

To help in the production of the centers for panning, the following machines and equipment can be used. Balling and rolling machines, kneading and cutting machines, pastilla presses, depositors, starch boards and handling equipment, extrusion machines, and drop rolls. A melting pan must be available for melting whatever material used for coating, whether chocolate or syrup. A copper pan having a capacity of 50 lbs. is ample as it is better to make syrup fresh at frequent intervals rather than to make syrup in large quantities and allow it to stand. Long holding of syrup weakens it as well as causing discoloration. It is essential that a good strong syrup be used.

Most manufactured candy pieces as well as many natural products can be coated either with a layer of chocolate or sugar. Here are a few suggestions for natural centers used in this type of work. Hazelnuts, almonds, pistachio nuts, half or quartered walnuts, Sultana raisins, currants, puffed wheat, puffed maize, puffed rice, pinon kernels, Brazil nuts, peanuts, etc.

Marzipan Centers

Marzipan is ideal with the following mixtures: with nuts, including pistachios, with croquant, with glace fruits, with noisette, with truffle, with cocoa and chopped chocolate.

Mr. Frank Perry, one of our foreign subscribers, sent this welcome contribution. Mr. Perry has had many years of experience in the confectionery industry abroad.

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Sample books on request

Artistic Cake Decorating From A to Z

John J. Zenker, 288 pages, illustrated, 1951, $10.00.

It is a rare occasion when a book such as this is published. This is a textbook containing the intensive course of instruction given by the Zenker School of Cake Decorating. Directions are given in simple language and are supplemented by more than 300 illustrations. The successful baker knows the value of eye appeal in selling cakes.

Much of the information presented should prove of value to the candy maker. Of the 29 chapters, at least seven could be included in a book on candy and confectionery. These chapters are: Gum Paste Novelties; Inlaid Sugar Designs and Plaques; Sugar Animals, Sugar Vases, Baskets and Flowers; Marzipan Fruits and Vegetables; Pulled Sugar; and Fancy Forms in Chocolate.

Marzipan fruits and vegetables offer tremendous profits and though they appear to be difficult to make, the author shows and tells how they may be easily prepared. Starting with a formula for marzipan, the author tells in detail how to make the attractive apples, pears, carrots, turnips, radishes, potatoes, bananas, peaches, strawberries, tangerines, pumpkins, and cherries seen in the exclusive retail shops.

Fancy Chocolate Easter Eggs are thoroughly treated. The use of metal (tin) moulds is favored. Hand decorations are still in vogue and royal icing continues in favor.

Time was when the confectionery industry was the peerless leader in the artistic field. Has the advent of mass production in our industry meant that the art of pulling sugar and the making of novelty items is to be relegated to our allied competitor, the baker? This reviewer favors the enlargement of the confectionery field, not its curtailment. But a book such as this is bound to improve the baker's art and increase his sales.

We recommend this book to those confectioners who still worship quality, can utilize hand labor effectively, and merchandise artistic confections.

Beet-Sugar Technology

R. A. McGinnis, XIV plus 574 pages, illustrated, 1951, $10.00.

At least 39 contributing authors are responsible for this book so ably edited by Dr. McGinnis. Further, the information contained in this treatise was obtained through the cooperative efforts of at least 10 domestic and foreign beet sugar companies. Therefore, a comprehensive coverage of the beet-sugar industry results.

The book is arranged in a logical manner, starting with European history and then dealing with the production in the U. S. and Canada. The culture of sugar beets, the tare laboratory, and the storage of beets are thoroughly discussed. The fundamentals of the processes

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used in sugar extraction are outlined and then elaborated upon in detail.

Packaging and storage operations are clearly portrayed. Special sugar products are mentioned at length. These include liquid sugars, invert sugar and corn syrup-sugar blends.

Adjunct operations such as lime and carbon dioxide production, saccharate processes, pulp driers, and waste disposal and by-product recovery are thoroughly detailed. Boiler house operation and control, technical accounting and process control are clearly discussed.

At the end of each chapter, references are cited for additional reading. There are 20 chapters in this book.

Four appendices include: (1) a glossary of technical terms; (2) processor-grower contracts; (3) laboratory thickening test data and calculations; and (4) reference books on beet sugar agriculture and manufacture.

This is one of the best reference books to come into the hands of your reviewer. It is a pleasure to recommend this text to all technical personnel interested in sugar technology. Candy technologists please note.

Ion Exchange Resins

Robert Kunin and Robert J. Meyers, xl plus 212 *pages illustrated,* 1950. *Price* $4.75.

Ion exchange finds application in agriculture, biology, medicine and chemistry. This is the first book to assemble, digest, and clarify the essential parts of the literature on this subject. Theory underlying the mechanism of ion exchange is discussed. The softening and the deionization of water are thoroughly treated as it is in this field that the synthetic resins have shown their greatest industrial application. Deionization water is bidding to replace distilled water for many uses. Before you buy boiler water equipment, read this book.

Sugar refining, cane and beet, have installations and ion exchange resins offer promise to the industry. "The controlled inversion of sucrose solutions utilizing the acid form of the cation exchange resins as catalysts holds promise as a means of preparing sugar syrups."

One chapter is devoted to ion exchange in analytical chemistry, one chapter to miscellaneous applications, and one chapter is devoted to the design of ion exchange units and estimates of costs. A twenty page bibliography of references is invaluable.

Fuel Oil Manual

Paul F. Schmidt, 160 *pages,* 1951, $3.50.

This book is not highly technical. It is intended to provide a practical working knowledge of fuel oils for laymen. The scope of this manual may be judged by the chapter headings which are: Introduction; Chemistry of Petroleum; Petroleum Refining Processes; Grades and Types of Fuel Oils; Gravity; Heat of Combustion; Viscosity; Water and Sediment; Carbon; Ash and Salt Residue, Flash and Fire Points; Pour Point; Sulphur; Color; Distillation; Preheating of Oils; Sampling Storage Tanks; Stability of Fuel Oils; Fuel Oil Treatments; Reclaimed Fuel Oils; Blending of Oils; Transportation and Storage; Fuel Oil Specifications; and Complaints and Causes of Trouble.

Numerous tables, graphs, and charts add to the value of the text.

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PACKAGE MACHINERY COMPANY

THE Q-M STORY

Under emergency conditions, rations for the armed forces pour through the port of entry in huge and crushing volume.

What is Behind Packaging Specifications for Candy and Chocolate Confections

by

FRANK J. RUBINATE and THOS. J. CONWAY

Subsistence Packaging and Packing Division

Quartermaster Food & Container Institute for the Armed Forces

Prepared especially for THE MANUFACTURING CONFECTIONER

It takes a war to teach us that good, sound packaging methods demand more than "skin deep" beauty.

THE MANUFACTURING CONFECTIONER *has presented the following articles dealing with the packaging of candies for the Armed Services overseas:*

Air Crew Lunch Raises Flyer's Ceilings, *Feb.*, 1945.

Packaging Lessons the War Has Taught Us, *June*, 1945.

Canned Candy Pleases Servicemen, *by Eleanor E. Durkee, Aug.*, 1945.

Vs Boxes—Wartime Wonder Shipping Containers, *Nov.*, 1945.

How Wartime Research Is Developing Better Packaging Methods, *by B. W. Scribner, Nov.*, 1946.

There appears to be some confusion among candy manufacturers with regard to military specifications MIL-C-10928 and the packaging requirements contained therein. This confusion is more apparent than real. The way to prove this point, however, is to indicate some of the conditions existing on the military supply lines that form the basis of specifications in general. These conditions are as follows:

(1) Ration items are usually subjected to a considerable amount of domestic handling, shipment and storage. Candy as a component of rations must first be shipped to ration assembly plants which may be located anywhere in the country. (This may entail a delay of anywhere from two to five months between completion of manufacture and assembly in completed ration packs.)

(2) Transportation of subsistence for military purposes entails problems relating to overseas shipments and transshipment after arrival overseas. (This

means more severe changes in temperature and humidity than are encountered domestically, and it also means loading of items in or near contact with other items of supply that may have an adverse influence on subsistence items.)

(3) Supply line requirements also include prolonged storage in areas not supplied with covered storage facilities. (This means that packaging for commodity items, highly vulnerable to spoilage, must be carefully specified to assure maximum protection against mold and off-odors, which are the deteriorative effects of moisture-vapor and/or other gases.)

While candy is not as susceptible to deterioration as other ration components, protection above that normally required for commercial shipment is necessary. However, at the present time, the Armed Forces are accepting essentially the commercial types of wraps on candies since the ultimate destination of the individual candy items is a ration pack employing a moisture-vapor barrier. Thus, the ration pack itself furnishes a protective environment against damage except for such interchange of moisture as often occurs within the pack itself. The ideal unit package, therefore, would be one utilizing materials impervious or highly resistant to grease absorption, moisture, gases, etc., and efficiently sealed to prevent ingress of these contaminants.

However, such a package, it is realized, can never be achieved without full consideration of production limitations. It would appear rather simple, for example, to prevent moisture, odor, or grease transfer by improving the packaging material, i.e., changing from a commercial glassine to a heavy aluminum foil. Ordinarily, this could be done, but all equipment is not adaptable to the handling of such a variation in materials. Furthermore, regardless of the superior nature of the wrap-material itself, very few packaging machines are capable of achieving a completely sealed package. Under such conditions a high-grade material would be wasted. Changing specifications from commercial practice, therefore, is done only where military necessity exceeds in importance standard production practices. This is to say that specifications for candy packaging are modified only where loss would be inevitable if the commercial package remained unmodified.

General treatment of the various rations and their candy components

With these facts in mind, it will be useful to review briefly the various rations in which are included candy components. The following chart lists the candy items in the *rations* (food for one man for one day), the *food packets* (designed for the initial phases of special combat actions where minimum bulk and weight characteristics must be observed), and the *ration supplements* (consisting of items used to supplement designated operational rations in certain special situations). It will be noted that certain basic types of packaging satisfy the requirements in most cases listed.

The following chart shows candy items used in operational rations, food packets, ration supplements*

1. Ration, Small Detachment, 5-in-1
   - Sweet chocolate bars
   - Caramel nougat bars (or)
   - Chocolate spun candy (or)
   - Chewy Chocolate roll (or)
   - Chocolate Fudge bar (or)
   - Vanilla cream bar (or)
   - Chewy caramels (or)
   - Candy-coated gum tablets
2. Ration, Individual, Combat
   - Sweet chocolate discs
   - Starch-jelly disc
   - (1 of 4 flavors) (or)
   - Chocolate fudge disc (or)
   - Caramel nougat disc (or)
   - Chewy chocolate roll (or)
   - Chocolate fudge bar (or)
   - Chewy caramels (or)
   - Grained caramels (or)
   - Fruit tablets (or)
   - Vanilla cream disc (or)
   - Candy-coated gum tablets
3. Ration, Individual, Trail, Frigid
   - Pan-Coated chocolate drops
   - Assorted plastic-filled hard candy
   - Candy-coated gum tablets
4. Food Packet, Individual, Assault
   - Starch-jelly bar (or)
   - Caramel nougat bar (or)
   - Vanilla cream bar (or)
   - Chocolate fudge bar (or)
   - Chewy caramel bar (or)
   - Chocolate Spun candy (or)
   - Sweet chocolate bars (or)
   - Fruit tablets
   - Candy-coated gum tablets
5. Food Packet, Individual, In Flight
   - Chocolate disc

Photographs shown on this and opposite page show Assault Packet used in early stages of operations: the variety of confections items available, not including the starch-jelly bar and the candy-coated gum tablets; and the items, from meat through candy-coated gum, easily carried in combat.

Chocolate fudge disc (or)
Vanilla cream disc
Starch-jelly disc
Sugar tablets
Candy-coated gum tablets

6. Food Packet, Individual, Fighter Pilot
   Sweet chocolate bars (or)
   Chocolate fudge bar (or)
   Starch-jelly bars
   Bridge mix
   Candy-coated gum tablets
7. Food Packet, Individual, Survival, SA-3
   Sweet chocolate bars
   Starch-jelly bars
   Sugar tablets
   Candy-coated gum tablets
8. Food Packet, Survival, ST-2
   Starch-jelly bars
   Sugar tablets
   Candy-coated gum tablets
9. Ration Supplement, Sundries Pack
   Sweet chocolate bar
   Starch jelly bar
   Caramel nougat bar (or)
   Chocolate fudge bar (or)
   Chewy caramels
   Fruit tablets
   Candy-coated gum tablets
10. Ration, Survival, Multi-purpose
    New type of bar based on nutritional research

** Packaging specifications for these items do not differ to any extent from normal domestic practices.*

In all of the rations and food packets listed above it is obvious that candy of one sort or another plays an important role. The reasons for this are twofold. In the first place, candy provides an immediate "lift", both physiologically and mentally. Equally important, from the use angle, is convenience of consumption in the oftentimes cramped compartments of military vehicles or aircraft where more often than not military rations are actually eaten. Furthermore, in connection with this last point, candy is one of the few ration items that does not require immediate consumption, but can be carried in the pocket for use between meals.

Special specification requirements and the reasons for them

Of most interest to manufacturers are the special requirements occasioned by military handling, transportation, and storage. These matters may perhaps best be understood in terms of package dimensions, packaging materials, and overwrap requirements. Concerning *package dimensions*, since a ration is actually an assortment of items varying in size and shape, and since these items must be assembled into a compact unit utilizing a minimum of valuable transportation space, it has been necessary to standardize the size of packaged candies. The sizes now considered "standard" are, for bars, 3⅛" x 1¼" x ¾", and, for discs, 2¾" diameter x ½" thickness. It is not likely that there will be any material change in dimensions of either bars or discs in the forseeable future.

In order to take advantage of present production facilities, requirements for *packaging materials* varying to any great degree from those commercially used have been kept to a minimum. Special bags made from materials ideally-suited to use at low temperatures are required for the Ration, Individual, Trail, Frigid. Beyond this, modifications of commercial packaging materials have been confined to increases in grease-resistance and use of heavier-weight materials.

Use of an *overwrap* on the intermediate containers—which are of commercial chipboard and usually contain not more than 48 of the individual candy items—to provide adequate protection for such items is a fairly recent development that bids fair to becoming a permanent requirement applicable to most candy procurements by the Armed Forces. The overwrap serves a double purpose. First, it prevents candy from drying out when stored in a dry location prior to assembly of the ration (oftentimes with the previously-mentioned two to five month delay between manufacture and ration assembly). Secondly, it prevents candy from absorbing moisture and becoming moldy or sticky prior to assembly.

Conclusion

It will thus be seen that, by-and-large, packaging specifications for candies are neither numerous nor complicated. Domestic types of packaging have, in most cases, been adapted to military needs. For obvious reasons, it is necessary in the description of packaging materials that basic and generic terms be used rather than the trade names that would more readily identify them, as, for example, Durethene, Pliofilm, Saran, Tralon, Patapar, Foil Wrap, Reyseal, Parakote, etc. However, most manufacturers will find, upon careful examination of candy specifications, that the packaging materials normally used commercially are synonomous with those specified by the Armed Forces. Therefore, no extended modifications of present plant facilities or techniques are required on the part of manufacturers.

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• FAIR LABOR STANDARDS

THE first full year's report of the U. S. Labor Department covering the Fair Labor Standards Amendment has just been completed, and the Public Contracts Division Administrator has reported to THE MANUFACTURING CONFECTIONER that some of the establishments investigated in this industry during the past fiscal year were found to have violated the Act's minimum wage, overtime pay or child-labor provisions.

The Administrator reports further that while a great majority of employers intend to comply with the Act, there are apparently many misinterpretations and misunderstandings about the statutory provisions, and that failure to comply with the provisions and bring operations within them are resulting in unnecessary penalties and liabilities for back wages.

The Act, as it affects the confectionery industry, is, briefly, to provide a minimum wage standard of 75 cents per hour; the payment of at least time and one-half the employee's regular rate of pay for all hours worked in excess of 40 in the work week, except where specifically provided otherwise; and the observation of the minimum age of 16 for most jobs with 18 as the minimum for occupations designated hazardous by the Secretary of Labor, although employment of boys and girls of 14 and 15 years of age is permitted in a few types of jobs, such as office and sales work, under strict restrictions on hours and working conditions.

Any employer having questions about the Federal Wage and Hour Law is invited to send inquiries to THE MANUFACTURING CONFECTIONER, or to contact direct the nearest office of Wage and Hour and Public Contracts Division of the U. S. Department of Labor.

• **United States Department of Labor,** in their December, 1951, Industry Report of Hours and Earnings, show the following averages in the last three months of 1951 for Confectionery and Related Products:

Weekly Earnings—		
	October	$ 50.96
	November	51.41
	December	52.58
Weekly Hours—		
	October	40.7
	November	41.0
	December	42.0
Hourly Earnings—		
	October	1.252
	November	1.254
	December	1.252

The New York State Department of Labor has revised it's minimum wage order. The provisions of the new order became effective March 3, 1952, and provide, briefly, a basic minimum hourly rate of 75 cents for full-time employees, and a weekly rate of $30 for 40 hours. Part-time employees shall receive the basic minimum hourly rate of 80 cents.

The order also includes regulations to safeguard minimum wage standards as well as instructions regarding administration.

Candy Production Methods and Formulas

a big 640-page book of candy "know how"

CANDY PRODUCTION: METHODS AND FORMULAS, is a big, 640-page, extra-helpful book designed to give practical "know-how" answers to problems of candy manufacture. Walter L. Richmond, the author, is superintendent for Garrott Candy Company and for Jane Garrott Candies, Inc., of St. Paul, Minn.

In CANDY PRODUCTION: METHODS AND FORMULAS, Mr. Richmond describes fully the three basic operations for good candy manufacture: (1) Ingredients and Cooking Actions, (2) Mixing, Casting, Coating, Etc., (3) Trouble Shooting. Mr. Richmond tells *both* the reasons and the methods of operation. In addition, he provides carefully selected formulas for both the wholesale and the retail trade.

Whether you have a large plant or a small one, CANDY PRODUCTION: METHODS AND FORMULAS will prove a valuable asset to your firm. Mr. Richmond's book has 30 helpful chapters, as shown in the accompanying contents table. Its 640 pages contain 500 candy formulas and detailed production information on candies. For quick, convenient reference, a numbered list of the book's 500 formulas—grouped also under 32 main candy classifications—is provided. A comprehensive index and large diagrams showing both how to decorate Easter eggs and how to insert fruit and nuts in the centers are still additional features. Designed specifically as a production man's text, Mr. Richmond's helpful book also provides generous space alongside the formulas for notes during actual production in the candy plant.

CANDY PRODUCTION: METHODS AND FORMULAS is now ready for prompt shipment. Price is $10. Use the handy coupon below.

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News of Associations

• **The Pennsylvania Manufacturing Confectioners' Association** has scheduled it's 41st Annual Meeting at Galen Hall, Wernersville, Pennsylvania, on June 19-21, 1952. Mr. J. A. Bachman is Chairman of the Committee on Arrangements; and Vera B. Heidelberger is in charge of the Ladies' Activities.

• **Kansas City Candy Club** will hold their annual Sales Exposition July 26 and 27, in the Municipal Auditorium in Kansas City, Missouri.

The arrangements committee consists of Bill Stronge, Fenn Bros., Inc.; Al Krebs, Al Krebs Brokerage Co.; Joe Greene, Candy Broker; and O. V. Hilpert, James O. Welch Co.

The Club has elected the following officers for 1952: President O. V. Hilpert; Vice President Ben Burkhardt, broker; Secretary E. E. "Pat" Bashor, broker; and Treasurer Frank Adams, Hershey Chocolate Co.

• **The Association of Cocoa and Chocolate Manufacturers of the United States** has appointed a committee to represent the Association in a visit to the Gold Coast and Nigeria (West Africa). It is the desire of the manufacturers to gain a better understanding of the problems confronting cocoa bean growers, and to make known the deep concern of those dependent upon raw cocoa beans over the apparent increase in Swollen Shoot disease on the Gold Coast. The mission is further evidence of the continued efforts of manufacturers of cocoa and chocolate products to forward cacao production.

The members of the mission to West Africa are A. Alexander Singer of Rockwood & Company; James L. Clevenger, Jr. of the Hershey Chocolate Corporation; and Lockett Coleman of the Walter Baker Chocolate and Cocoa Div. of the General Foods Corporation. It is expected that the itinerary will include Takoradi, Gold Coast, Accra, Kumasi, and Logos, Nigeria. Conferences have been arranged with officials of the country as well as growers and exporters.

• **National Candy Wholesalers' Association,** has designed "HERE'S HOW in Candy Wholesaling" as the theme for the Seventh Annual convention,

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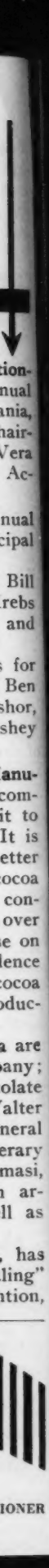

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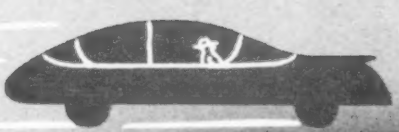

1952

To Atomic Energy Age

to be held at the Palmer House, Chicago, May 18-21, 1952. The exposition will feature the "Nation's Complete Candy Show," as well as a large number of allied lines.

The theme was chosen by the Executive Committee to emphasize that this year they will have another **working** convention, and attention will be focused on the profitable methods of candy wholesaling, as experienced by some of the most successful wholesalers in the nation.

• **Joseph V. Balocca** of Paola, Kansas, Chairman of the Board of Directors of the NCWA, is serving as Chairman of the Campaign Committee for the Confectionery Industry Foundation. Efforts are being intensified to raise funds for basic research work of the Foundation, according to Mr. Balocca, and he and his committee on the project are planning personal calls on industry leaders for that purpose. A total of $100,000 is expected to be raised to support the efforts of the Foundation in it's study of the industry's market methods.

• **F.E.M.A. to Convene in Chicago.** The Edgewater Beach Hotel in Chicago has been selected for the 43rd Annual Convention to be held by the Flavoring Extract Manufacturers' Association. A well-rounded program of well-known business leaders as speakers, dancing, parties, entertainment and golf has been planned.

Registrations are being taken by the Convention Chairman, Mr. Ed Heinz, Food Materials Corporation, 2521 West 48th St., Chicago 32.

CANDY MEN AT WISCONSIN U

Representatives of the Candy Industry attended dedication services for Babcock Hall, University of Wisconsin, the new university home of the Department of Dairy and Food Industries. At Babcock Hall, the Department will conduct training of dairy and food workers, basic and applied research in dairy and food fields, and make available service to farmers, processors and consumers.

Candy representatives reviewed possible research projects with Dr. Kenneth G. Weckel, Professor of Dairy and Food Industries, prior to their visit to the new building. Tentative plans were made for Dr. Weckel to meet with other candy manufacturers in Wisconsin of specific confectionery projects.

Shown (l to r) as they toured the new Babcock Hall, University of Wisconsin, are Raymond W. Ziegler, George Ziegler Co., Milwaukee, Wisc.; Philip P. Gott, President, National Confectioners' Association; Dr. K. G. Weckel, Department of Dairy and Food Industries, University of Wisconsin; G. Lloyd Latten, Schutter Candy Div., Universal Match Corp., Chicago; and H. A. Melster, Melster Candy Co., Cambridge, Wisc.

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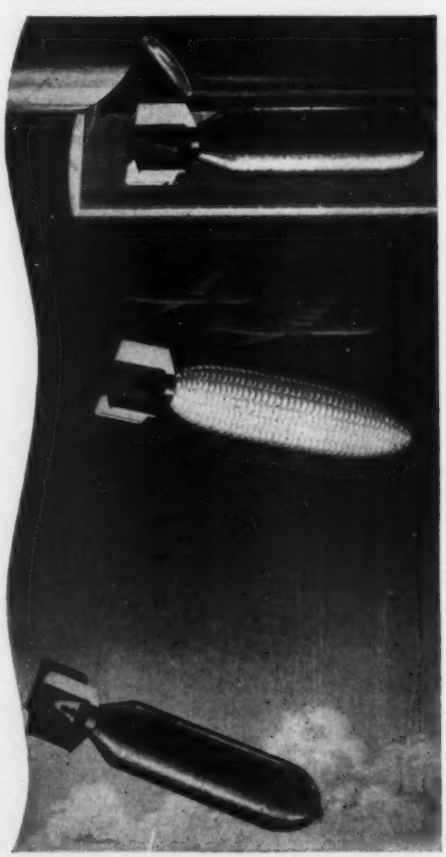

Commodity Market Quotations for Basic Raw Materials

This table covers one year with the most recent quotations on the top line.

Week Ending		Cocoa[1]	Sugar[2]	Corn Syrup[3]	Eggs[4]	Coconut[5]	Almonds[6]	Peanuts[7]	Pecans[8]	Peppermint[9]	Lemon Oil[10]	Orange Oil[11]	
Mar.	21	38.37	9.08	5.69	.38½	.17	.64½	.21½	.75	7.45	6.00	2.75	.....
	14	38.37	9.08	5.69	.36	.17	.64	.21½	.80	7.45	6.00	2.75	.....
	7	38.37	8.73	5.69	.36	.17	.64	.21½	.80	7.80	6.00	2.75	.....
Feb.	29	38.37	8.73	5.69	.36½	.17	.64	.21½	.80	7.80	6.00	2.75	.....
	21	36.37	8.73	5.69	.35	.18½	.64½	.21½	.80	7.45	6.00	2.75	.....
	15	36.00	8.73	5.69	.35	.18½	.64½	.21	.80	7.45	6.00	2.75	.....
	8	36.37	8.73	5.69	.36½	.18½	.64½	.21	.80	7.55	6.00	2.75	.....
	1	37.00	8.73	5.69	.37	.18½	.64½	.20½	.80	7.55	6.00	2.75	.....
Jan	25	36.25	8.73	5.69	.39½	.18½	.64½	.20½	.80	7.55	6.00	2.75	.....
Dec.	28	32.65	8.83	5.59	.46	.18½	.64½	.20	.80	7.55	5.00	2.75	.....
Nov.	30	29.50	8.83	5.44	.60	.17½	.64½	.20½	.80	7.75	5.00	2.75	.....
Oct.	26	31.37	8.83	5.34	.66	.17½	.64½	.19	.95	7.75	5.00	2.75	.....
Sept.	28	34.10	9.08	5.34	.60	.17½	.68	.18¾	1.15	7.75	5.00	2.75	.....
Aug.	31	35.50	8.40	5.34	.56	.17½	.68	.17½	1.15	7.25	5.00	2.75	.....
Jul	27	35.00	8.60	5.23	.53	.18½	.68	.17¾	1.25	7.25	5.00	2.75	.....
Jun	29	38.30	8.40	5.23	.53	.18½	.68	.17	1.25	7.25	5.00	2.75	.....
May	25	38.20	8.20	5.23	.46	.22	.68	.17	1.25	7.25	5.00	2.58	.....
April	27	38.40	8.59	5.23	.48	.22	.70	.17	1.25	7.25	4.50	2.50	.....
Mar	30	38.40	8.59	5.33	.48	.21	.70	.17	1.23	7.25	4.50	2.50	.....

[1]Accra, at N. Y. (per 100 lb.) [2]Granulated, cane, delivered Chicago, (per 100 lb. bag) [3]43b, f.o.b. Chicago, (per 100 lbs.) [4]Extras, large, Chicago markets, (per dozen) [5]Dessicated, f.o.b. Chicago, (per lb. per 100 bag lots) [6]California non-pareils, medium, delivered Chicago (per lb.) [7]No. 1 Spanish shelled, f.o.b. southeast shipping points, (per lb.) [8]large halves, delivered Chicago, (per lb.) [9]natural, Chicago, (per lb. per 25-lb. can) [10]California, delivered Chicago, (per lb. per 25-lb. can) [11]California, delivered Chicago, (per 25-lb. can)

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Use of Sweetener by Type of Confectionery

In an article entitled "Competitive Relationships Between Sugar and Corn Sweeteners," Phillip E. Jones and F. G. Thomason, authors, show the results of a survey covering the general uses and factors determining the choice of sweeteners in candy manufacture. In this issue are shown three types—Hard Candies, Gums and Jellies and Fudge.

Hard Candies

Hard candies, as discussed herein, include not only those types which are easily recognized as "hard," but also such allied kinds as brittles, crunches, crisps, toffeys, hard mints, and mint drops. Granulated sugar is by far the more important of all sweeteners in hard candy manufacture, being used in higher ratios to other sweeteners than in any other class of confections except chocolate. Generally speaking, all of the sweeteners having predominant invert characteristics, such as partially inverted liquid sugar, invert sugar, honey, high-conversion corn syrup, and molasses, are not popular in hard-candy manufacture, due to their tendency to cause excessive sweating during humid weather. Turbinado sugars are rarely used in hard candies because they also tend to impart discoloration and an excessive molasses flavor.

A large proportion of high-quality hard candies was reported to be made with from 60 to 70 percent sugar, and the balance of total sweeteners being regular corn sirup. Almost one-third of the hard candy manufacturers visited were using 60 percent and 40 percent corn sirup while slightly more than a fourth reported using 70-30 proportions. When open-fire cooking methods were used, ratios of 70 percent sucrose to 30 percent corn sirup were common. In the more modern vacuum-pan cookers, a ration of 60 percent of sucrose to 40 percent corn sirup was very common. The majority opinion was that corn sirup in excess of 40 percent of total sweetener causes excessive sweating and stickiness of hard candies in hot or humid weather. It was not uncommon, however, to find hard candies of average and good quality being made with higher percentages of corn sirup, since 15 percent of the manufacturers reported common usage of a 50-50 formula. Individual pieces are often wrapped in moisture resistant cellophane, or the candy may be pack-

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aged in glass containers; and more corn sirup may be used when the candy is to be marketed in cold weather.

A few firms reported using 100 percent sugar in hard candies, but in general, this percentage of sugar was reported to cause excessive graining or to make candies chalky. At the opposite extreme, confectioners occasionally made use of 100 percent corn sirup, and no sugar, in order to keep in business during the war rationing period, but stated that while it did make hard candy which could be marketed, it lacked sweetness, was diffi-

Gums and Jellies

Some combination of sugar and regular corn sirup is by far the general rule in making gums and jellies. Of the 51 plants surveyed which produce these types of confections, all used sugar and all but four used regular corn sirup. Only one plant used invert sugar, while the percentages of those using dextrose and high-conversion corn sirup were 15.7 and 7.8, respectively.

The consensus among manufacturers was that top quality is achieved when two-thirds of the sweetener is sugar and the remainder is regular corn sirup. Average quality gums and jellies were said to result with 50 to 60 percent corn sirup, or even as much as 70 percent corn sirup, if the pieces are sanded or coated. Sanding the piece with coating sugar reduces the tendency to sweat in hot and humid weather when high percentages of corn sirup have been used. Almost half of those who were making gums and jellies used half corn sirup and half sugar for the sweetener contents, while another 20 percent preferred to use 60 percent corn sirup. Toughness and sweating were reported to result if the proportion of corn sirup was more than 60 percent. Confectioners indicated that temperature of the cook was as much a controlling factor for producing tenderness or toughness in gums and jellies as is the percentage of sugar and corn sweetener used. During the World War II sugar shortage, confectioners frequently used corn sirup as the only sweetener in these products.

As with nougats and caramels, the price differential between sugar and corn sirup materially affects the proportion of these two sweeteners used in gums and jellies. An increase in the differential will encourage those using a 60-40 ratio to switch to a 50-50 or even a 40-60 formula, and a narrowing of the differential will have the opposite effect. Other considerations usually restrict a confectioner from adjusting the proportion of sweeteners beyond this 20 point range.

High-conversion corn sirups appear to be gaining in popularity for this type of product, offering greater sweetness than regular corn sirup, and a more tender piece. It was reported that sugar percentages could be reduced considerably when the high-conversion type was substituted for regular conversion corn sirups. Some manufacturers indicated that production costs could be lowered when high-conversion sirups were used for replacing part of the sugar and part or all of the regular corn sirup requirements. Many felt that use of this sweetener and less sugar increased the shelf life and gave the products the desired degree of sweetness, and that its use instead of regular corn sirup improved texture and flavor.

Considerable controversy was found to exist as to the place of dextrose in making gums and jellies. Those who did not favor its use maintained that batches con-

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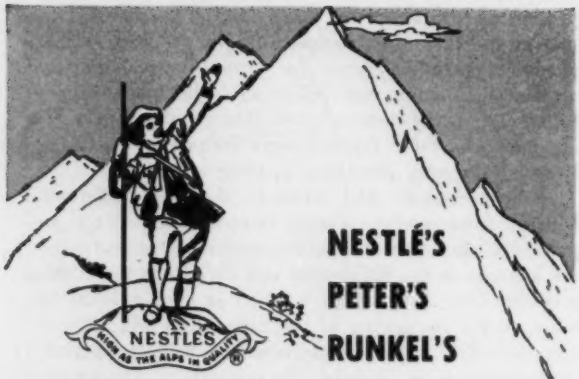

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Ambrosia

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AMBROSIA CHOCOLATE COMPANY • MILWAUKEE 3, WISCONSIN

taining it must be cooked to a higher temperature, with resultant toughening and discoloration attributed to caramelization of the dextrose. Others, however, maintained that dextrose in amounts up to 25 percent of total sweetener aided in moisture retention in these pieces, made them more tender, and allowed a little reduction in ingredient costs.

Fudge

Sweeteners used in the great bulk of fudge manufactured for general use usually consist of between 60 to 70 percent sugar and 30 to 40 percent corn sweeteners, with or without the use of small percentages of invert sugar. The best ratio for all-around use was reported to be 70 percent sugar and 30 percent regular corn sirup, this being just enough corn sirup to maintain the proper softness of the piece, control crystallization, and prevent grainy consistency. Some manufacturers use regular corn sirup while others use a combination of the regular and high-conversion types. Some invert sugar is often used instead of high-conversion corn sirup. Manufacturers indicated, however, that invert sugar cannot be substituted for all of the corn sirup ratio called for, because of the need for the dextrins of corn sirup to control body and texture of the piece and reduce the sweetness.

Although fudge made with as much corn sirup as 40 percent of total sweetener was disliked by some because they believed the flavor of corn sirup too detectable at this point, this combination was fairly popular because materials cost in acceptable quality fudges was minimized at this point. In wartime, the sugar content dropped below 60 percent but high-conversion corn sirups or invert sugar were added to bring up the sweetness and to tenderize the product. Proportions of sugar above 70 percent were generally considered too expensive for profitable operation. However, many high-quality fudges are made with 75 or 80 percent sugar, around 5 percent high-conversion corn sirup or invert sugar, and the remainder regular corn sirup. Proportions of sugar in excess of 80 percent of total sweetener were considered to result in fudge which was too dry or short. Therefore, the area of substitution between sugar and corn sirup in making fudge is largely in the area between 60 and 80 percent sugar. It is only within this 20-point range that changes in the price differential between sugar and corn sirup have any material effect upon the proportions of sweeteners used. However, price relationships between regular and high-conversion corn sirup and between these sirups and invert sugar determine to a large extent the exact proportions of those sweeteners which will constitute the 20 to 40 percent of total sweetener which is not sugar.

Sixty-five percent of the fudge manufacturers reported using dextrose at the time of the survey. Ordinarily it was not used in amounts in excess of 10 to 15 percent of total sweetener. Manufacturers who favored its use felt that small amounts of this sweetener resulted in a fudge which was tender and had a good moisture-retaining properties. If used in excess of 10 to 15 percent, however, dextrose was said to cause excessive crystallization. The price differential between sugar and dextrose seemed to encourage little use of dextrose in fudge. On the other hand, the lower price of corn sirups and the cost and inconvenience of handling another sweetener definitely seemed to discourage the use of dextrose.

Supply Field News

• **Lynch Corporation** announced the opening on March 1, of two new regional offices in order to provide closer contact with their customers. The Mid-Western Office at 506 South Wabash Avenue, Chicago, will be under the management of B. D. Berk assisted by F. G. Lenhart. The Southern Office, located at 1036 Peachtree Street, Atlanta, will be managed by B. J. Scholl, with R. W. Graf as assistant.

• **Theodore R. Miles,** has been elected Vice President of the Wm. J. Stange Co. He will assume responsibility for the management of production, inventory, and personnel in all plants. Also he will handle such legal problems as are presented by the Defense Production Act, including Wage Stabilization and priorities.

• **Corn Products Company,** through its president, W. H. Gamble, has announced the election of Harold Francis as Vice President and General Sales Manager for the Eastern Division. Except for a period during World War I when he served with the Army, Mr. Francis has been continuously employed by Corn Products since 1914 and has served in its Pittsburgh, Chicago and New York offices.

• **Givaudan Flavors, Inc.,** has appointed Hans P. Kessler as Sales Manager, according to a recent announcement made by Paul Adams, manager of the firm. Mr. Kessler has been engaged in selling Givaudan products abroad for more than ten years.

Hans P. Kessler

BURCO Products . . . "BEST by TEST"

Variation in the finished product, regardless of cause is risky . . .

BURCO Products are "Basic Ingredients" of year-after-year uniformity. . . . A firm foundation on which to build REPEAT business.

Outstanding Formula Using CONFECTIONERS PECTIN

We recommend that you try CONFECTIONERS PECTIN, a standardized citrus pectin for CUT SLAB JELLIES:

Place in a kettle 10 lbs. Sugar, 1 lb. CONFECTIONERS PECTIN and mix dry thoroughly. Add 1½ gals. of water. Bring to a boil for 2 minutes and add 8 lbs. hot Corn Syrup. Cook to 222-224 degrees. Flavor and color, then add ¾ oz. of 50% Citric Acid Solution. Stir quickly and pour quickly on slab.

NU-KREME—Grade A of all Nougat Creams.

DIPPING PIECES—Molasses Honeycomb Chips, Peanut Butter Chips, Toasted Cocoanut Chips, Chocolate Center Chips, Almond Butter Sticks, Mint Pillows and Peanut Butter Pillows.

BURCO NOUGAT CREME—The All Purpose Nougat Cream.

TOPPINGS—Marshmallow, Butterscotch, Caramel and Chocolate Fudge.

CONFECTIONERS PECTIN—For Cut Slab Jellies.

NU-MILK—Whole Milk in Plastic form for Caramels and Fudges.

FRESH COCOANUT PASTE—Ready to use for Chocolate or Bon Bon Centers.

PECTOLENE—A Pectinized Invert Sugar Product.

CENTER-ROLL KREME—for Soft-flowing Creams.

KREME-TEX—For Creamy Fudge and Caramels.

Formula Book "Recipes for Better Candies" sent with initial order

BURKE PRODUCTS CO., INC.

317 W. HUBBARD STREET • CHICAGO 10, ILLINOIS

CRUSHED ORANGE CENTERS

Ready To Dip

Absolutely pure orange, not a jelly. Made only as a Master Candy Maker can make them. Save muss 'n' fuss. Save time and labor. Just dip in chocolate, or Bon-Bon cream. Most delicious, not bitter.

Exclusive process ***Sole manufacturer***

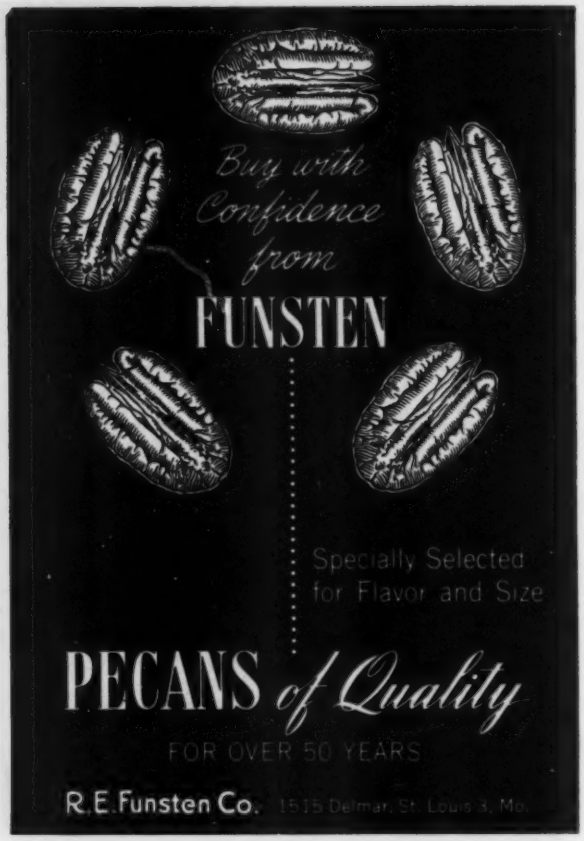
CHARLES C. WALKER

Mt. Dora, Florida

Ferbo CAKE FLAVOR

A Ferbo Specialty Flavoring that imparts a Rich and Delicious taste characteristic of a mixture of Butter and Cream and Caramel and Vanilla. Used extensively by both the Bakery and Confectionery trades. Sample upon request.

PRODUCERS AND PACKERS OF FOOD SPECIALTIES
THE FerboCo.
GREEN VILLAGE N. J.
MANUFACTURERS OF FINE FLAVORINGS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FUNSTEN
Specially Selected for Flavor and Size
PECANS of Quality
FOR OVER 50 YEARS
R.E. Funsten Co. 1515 Delmar, St. Louis 3, Mo.

• **Oakite Products, Inc.** has awarded the D. C. Ball Award for Distinguished Service, to J. W. Haines, technical service representative of the company. The plaque is presented annually to that member of the firm's field organization adjudged to have rendered the most outstanding service to industry during the year.

Just completed has been Oakite's move to newer and larger quarters at 19 Rector Street, New York 6, N. Y. This move has been made necessary in order to provide greater space for the company's constantly expanding field of operation and research.

• **A. E. Staley Manufacturing Company** recently held the first of what is intended to be a series of industrial refresher courses for sales representatives. The course is aimed at acquainting the salesmen with the operations and procedures of the company in relation to their department.

The course included general talks on salesmanship, and many specific talks on sales plans and outlook.

The company has made several promotions in its sales' staff: William N. Dulaney to manager of the Southeastern sales office; Daniel S. Miller to assistant manager of the same office in charge of package product sales; and Ray E. Harroun to assistant manager of the Industiral Sales Department in Decatur. Mr. Ronald W. Murphy has been named to succeed Mr. Harroun as West Coast sales manager.

• **Wm. A. Camp Co., Inc.** has just released Informational Series No. 3, which is a pretty comprehensive coverage of the subject "Brazil Nuts in Shell." The report includes a description of the origin of the Brazil Nut, its growth and development, methods of gathering, processing, grading, packing, shipping, storing and selling. The complete story may be obtained from the company office at 100 Hudson Street, New York 13, N. Y.

• **Walter Muskat,** eastern sales office manager of Triangle Package Machinery Co., Chicago, has been promoted to director of sales. He succeeds Rex Stone. Robert Strehlau, formerly with the Package Machinery Co., has been appointed to succeed Mr. Muskat.

1952 plans include an intensified direct mail advertising program, supplemented by busines publication advertising, and the Company has named Arthur R. MacDonald, Inc., Chicago, to direct its advertising.

• **Durkee Famous Foods** has announced the appointment of Robert J. Lowry as territorial sales manager for Eastern Pennsylvania and New Jersey. Mr. Lowry served in a sales capacity with Cudahy and Kraft Foods prior to joining the Durkee staff.

• **The Brewers Yeast Council** has launched a three-year research program by appointing a Research Advisory Board composed of eminent nutritionists and technologists from the feed and food industries, universities, government laboratories and industrial research institutions.

The program, designed to expand the knowledege and use of Brewers' Yeast and its derivatives, will include fundamental research on its composition and properties, nutrition studies, technological investigations, and development of new products. These and additional projects to be sponsored by BYC will be under the guidance and coordination of the Advisory Board. The work will be carried on through grants to universities and agricultural colleges, correlation and coordination with existing projects at government laboratories, agricultural experiment stations, and industrial research institutions as well as by analytical and feeding tests at industrial laboratories.

Mr. C. A. Dayharsh, Jacob Ruppert Brewery; Miss Elsie Singruen and Mr. J. S. McCourtney, both of BYC.

Dr. Paul R. Cannon, University of Chicago; Mr. J. M. Leinen, Jos. Schlitz Brewing Co., Mr. Allan Beach, Master Brewers Ass'n of America.

You Asked For It---

Now You Can Get It!

Responding to many requests from candy men, THE MANUFACTURING CONFECTIONER is pleased to announce the coming publication, in book form, of the splendid series of articles on candy making by

ALFRED E. LEIGHTON

Consulting Food Chemist & Candy Technologist

Acclaimed to be one of the most interesting series of articles yet written on candy making

A PRIMER ON CANDY MAKING

Down-to-earth reading
in non-technical language

Regular Price $6.00

Practical Lessons Include

Fondants
Fudge
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All will find this book useful to them

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The Manufacturing Confectioner Publishing Co. **1952**
9 South Clinton St.
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Enclosed find my check for $..... Please enter my order for ..... copies of A PRIMER ON CANDY MAKING by Alfred E. Leighton. I understand that my copy will be shipped immediately upon publication.

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Confectionery Brokers

New England States

JESSE C. LESSE CO.
Confectionery
Office and Sales Room
161 Massachusetts Ave.
BOSTON 15, MASS.
Territory: New England

Middle Atlantic States

JAMES A. BRADY CO.
1018 Monsey Avenue
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Concentrated coverage of the candy and food trade in N. E. Penna. "The Anthracite"

ARTHUR M. CROW & CO.
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Cover conf. & groc. jobbers, chains, dept. stores, food dists.
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JACK HAAZ
6720 Sprague St.
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Telephone: GErmantown 8-7593
Territory: Pennsylvania, N. J., Balt., Wash.

HERBERT M. SMITH
318 Palmer Drive
NO. SYRACUSE, NEW YORK
Terr: New York State

IRVING S. ZAMORE
2608 Belmar Place
SWISSVALE, PITTSBURGH 18, PA.
29 Years Experience
Terr: Pennsylvania, excluding city of Philadelphia

South Atlantic States

JIM CHAMBERS
Candy Broker
84 Peachtree Street
ATLANTA 3, GEORGIA
Terr: Ga., Ala., and Fla.

WALTER C. McGILL
Candy Specialties—Jobbers only
Box 912, Lynchburg, Va.
Terr: Virginia, No. & So. Carolina

WM. E. HARRELSON
Candy & Allied Lines
5308 Tuckahoe Ave.—Phone 44280
RICHMOND 21, VIRGINIA
Terr: W. Va., Va., N. & S. Car.

South Atlantic States (cont'd)

ROY E. RANDALL CO.
Manufacturers' Representative
P. O. Box 605—Phone 7590
COLUMBIA 1, SO. CAROLINA
Terr: No. & So. Carolina
Over 25 years in area

BUSKELL BROKERAGE CO.
1135 East Front Street
RICHLANDS, VA.
Contact Wholesale Groceries, Candy Jobbers and National Chains
Terr: Va., W. Va., Eastern Tenn., and Eastern Kentucky

W. M. (BILL) WALLACE
Candy and Specialty Items
P. O. Box 472—111 Rutland Bldg.
DECATUR, GEORGIA
Terr: Ga. & Fla.
Thorough Coverage

SAMUEL SMITH
2500 Patterson Ave. Phone 22318
Manufacturers' Representative
WINSTON-SALEM 4, N. CAROLINA
Terr: Virginia, N. Carolina, S. Carolina

East No. Central States

G. W. McDERMOTT
100 North Raymond St.—Phone 382
MARINETTE, WISCONSIN
Terr: Wisc. & Upper Mich.—covered every five weeks.

ROGER ETTLINGER
Phone Townsend 8-5369
16525 Woodward Ave.
DETROIT 3, MICHIGAN
Terr: Entire state of Michigan

BERNARD B. HIRSCH
1012 N. 3rd St.
MILWAUKEE 3, WISCONSIN
Terr: Wis., Ia., Ill. (excluding Chicago) Mich. (Upper Penn.)

• **J. W. Greer** has announced a series of changes in its sales staff. Charles R. Becker, formerly sales manager at Cambridge is moving to the west coast to open and manage the western sales office in San Francisco. Walter Salter, formerly in the southeastern states, has moved to the New York office to replace Melvyn Mickevicz, who has resigned.

Rod Grace, formerly covering New England and Canadian territory has been moved to fill the vacancy at the Cambridge office.

• **Shellmar Products Corporation** directors have created two executive vice presidencies, one for each of the corporation's two principal divisions. Elected to the newly created posts were Warren E. Hill of the Shellmar division and John W. Cox of the Self-Locking division.

Creation of the new offices was in line with the established policy of centralizing responsibility and insuring continuity of management.

A new sales department in the company will be headed up by W. E. "Bill" Gamron, well known in the paper trade through his twelve years of experience with the Union Bag and Paper Corp. For the past six years Bill has been Vice President of the Boom Electric and Amplifier Co. of Chicago. In his new capacity he will direct sales of Shellmar products, especially standard size transparent bags, through jobbers and other distributors.

According to a recent news release, a preliminary statement of 1951 indicates new high records were set in both net sales and net earnings for the Shellmar company. Net sales for the year were $43,067,017, a 27 per cent increase over the 1950 figures; net earnings before taxes were $5,986,280, an increase of 20 per cent. However, due to new corporate tax rates, net earnings for dividends were $2,067,395, a decline of 19 per cent from the 1950 earnings of $2,562,712.

• **The DuPont Company** has discontinued allocations of cellophane it has announced, and is now in a position to accept additional orders. Cellophane supplies had been short since 1942 when the allocation program was put into effect in order to provide a fair distribution of the available supply.

• **Minneapolis-Honeywell Regulator Company** has appointed Stephen A. Keller as general manager of its Valve Division. He succeeds James H. Binger, who will continue as vice-president of the division.

Keller will be responsible for all phases of the division's activities except sales, which will continue under K. R. Knoblauch.

• **General Food Corporation** has announced two executive changes. Charles G. Mortimer, Jr., was elected executive vice-president, succeeding Edwin T. Gibson, who has retired.

Edwin W. Ebel has been appointed director of advertising. Mr. Ebel succeeds Howard Chapin, now marketing manager of the Birds Eye division.

• **Gustave C. Callerman,** retired head of Callerman Co., well known food brokers of Chicago passed away in Phoenix, Arizona, where he had gone to live.

• **Wray H. Callaghan,** sales manager of the folding carton division of Robert Gair Company, Inc., has announced the appointment of Kenwood Dixon as art director for the company. He will coordinate art efforts for the company, to maintain a high level of quality in material produced in Gair plants for its customers.

Mr. Dixon was art director at Kenyon and Eckardt, Inc., for many years. He studied at the Art Students League, and is a graduate of Pratt Institute in Brooklyn, N. Y.

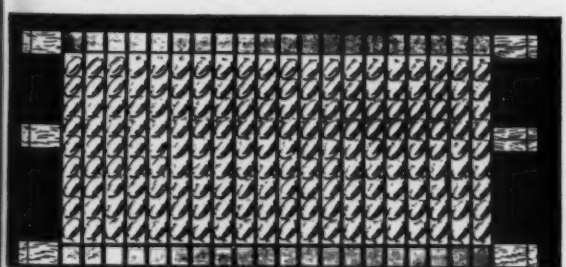
• **Chas. Pfizer & Co.** has announced the election of John J. Powers, Jr., to fill a newly created vice-presidency. Powers will assume responsibility for all the company's foreign activities. In assuming the new position, he has relinquished the position of Secretary, to which he was elected in 1948. He became a director of the firm in 1949, and later a member of Pfizer's executive committee.

Robert C. Porter, presently company counsel and head of the legal department, succeeds Powers as secretary of the Pfizer Co.

• **Lynch Corporation** has broadened its New York export department, Rocke International Corporation, to include its line of wrapping and packaging machines. Heretofore the export concern has handled only the PAR refrigeration condensing unit line. The move was made in order to make the company's packaging machine lines available to foreign customers in greatly increased volume.

• **B. F. "Smokey" Grogan,** formerly sales manager of California Container Corporation's Folding Carton Division, Oakland, Calif., has joined the Kliklok Corporation as Sales Promotion Director, according to an announcement by Albert M. Austin, Kliklok president.

Mr. Grogan entered the packaging field 26 years ago with Marathon Corporation, serving as plant manager and in various sales capacities. When the Bemiss-Jason Company first developed the "Kliklok" package and machines, Mr. Grogan was its Southern California sales manager.



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CHEAPEST, MOST PRACTICAL AND ECONOMICAL MOULD MADE

Now with a NEW FINISH
which eliminates break-in time

CINCINNATI ALUMINUM MOULD CO.

Dept. M, 1834 Dana Ave., Cincinnati 7, Ohio

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824 No. Pennsylvania St.
INDIANAPOLIS 4, IND.
Territory: Indiana, Except extreme North.

IRWIN R. TUCKER COMPANY, INC.
308 W. Washington Street
Chicago 6, Illinois
Complete Coverage of Chicago Market

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Manufacturers Representative
1801 No. Central Park
Chicago 47, Illinois
Covering Metropolitan Chicago

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Territory: Illinois, Indiana, Wisconsin
25 years in the Candy Business

ARTHUR H. SCHMIDT CO
815 Erieside Ave.
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Territory: Kentucky and Tennessee

A. C. BURNETT COMPANY
Candy Brokers
HALEYVILLE, ALA.
A crack team of six Southern salesmen. Ky., Tenn., Miss., Ala., Fla., Ga., S. C., N. C., Va., W. Va., Ark., La.
If it will sell in Dixie—we can sell it.

FELIX D. BRIGHT & SON
Candy Specialties
P. O. Box 177—Phone 8-4097
NASHVILLE 2, TENNESSEE
Terr: Kentucky, Tennessee, Alabama, Mississippi, Louisiana

J. L. FARRINGER CO.
FRANKLIN, TENNESSEE
Established 1924
Territory: Tenn., Ky., and W. Va.
3 Salesmen covering territory

AUBREY O. MAXWELL CO.
91 Franklin St.
NASHVILLE 3, TENN.
Manufacturers Sales Agent
Territory: Middle Tennessee

West No. Central States

ELMER J. EDWARDS CANDY BROKERAGE
5352 31st Ave. So.
MINNEAPOLIS 17, MINN.
Phone: Pa. 7659
Terr: Minn., N. & S. Dak.—Special attention given to Twin City trade

GRIFFITHS SALES COMPANY
725 Clark Ave.—Phone GA. 4979
SAINT LOUIS 2, MISSOURI
We specialize in candy and novelties.
Terr: Mo., Ill., and Kan.

West So. Central States

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BALLINGER, TEXAS
Personal Representation
Territory: Texas

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CAMERON SALES COMPANY
3000 Monaco Parkway
Denver, Colo.
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Candy & Allied lines. More than ten years coverage of Colo., Wyoming, Mont., Idaho & Utah

JERRY HIRSCH
Manufacturers' Representative
Candy and Specialty Items
4111 E. 4th St.
TUCSON, ARIZONA
Territory: Arizona, New Mexico & El Paso, Texas

G & Z BROKERAGE COMPANY
New Mexico—Arizona El Paso County Texas
P. O. Box 227 ALBUQUERQUE N. Mex.
Personal service to 183 jobbers, super-markets and department stores. Backed by 26 years experience in the confectionery field. We call on every account personally every six weeks. Candy is our business.

KAISER MICHAEL
Broker
Manufacturers' Representative
"Worlds Finest Candies"
911 South Richmond Ave.
ALBUQUERQUE, NEW MEXICO
Terr: New Mexico, Arizona & El Paso, Texas area

Confectionery Brokers (Cont'd)

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CARTER & CARTER
Confectionery Mfr's Representative
since 1901
91 Connecticut St.
SEATTLE 4, WASHINGTON
Offering dependable representation in the states of **OREGON & WASHINGTON**
Randall Schmoyer (owner)

MALCOLM S. CLARK CO.
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923 E. Third St.—Southern California
LOS ANGELES 13, CALIF.

Terminal Sales Bldg.
Wash., N. Idaho
SEATTLE 1, WASH.

903 Park Road
Ariz., New Mex., W. Texas
EL PASO, TEXAS

HARRY N. NELSON CO.
112 Market St.
SAN FRANCISCO 11, CALIF.
Established 1906
Sell Wholesale Trade Only
Terr: Eleven Western States

I. LIBERMAN
SEATTLE 22, WASHINGTON
Manufacturers' Representative
1705 Belmont Avenue
Terr: Wash., Ore., Mont., Ida., Utah, Wyo.

GEORGE R. STEVENSON CO.
Terminal Sales Building
SEATTLE, WASHINGTON
Territory: Wash., Ore., Ida., Mont.
Over 20 years in this area.

RALPH W. UNGER
923 East 3rd St.
Phone: Trinity 8282
LOS ANGELES, CALIFORNIA
Terr.: Calif., Ariz., N. Mex., Hawaiian Islands

GENE ALCORN & CO.
1340 E. 6th Street
LOS ANGELES 21, CALIFORNIA

383 Brannan Street
SAN FRANCISCO 7, CALIFORNIA
Territory: State of California

Franklin Ice Cream Grows . . . and Grows

Thirty years ago Mr. Irving C. Reynolds, now president of Franklin Ice Cream Company, thought 35 cents too much to pay for a pint of ice cream and decided to do something about it. A remodeled blacksmith shop was the background of his first attempts to beat this high price. With Mrs. Reynolds and a college friend, John Gifford, as partners, the first pint they produced of the delicacy, was sold for only 27 cents.

A good product which was sold at a fair price paid off for the venture, and before too long it was necessary to expand to larger quarters to keep pace with the demand.

In order to level out employment in the business, they added a line of hand-dipped chocolates and other candy-kitchen items to their growing chain of ice cream stores, and find their companion products doing very nicely side by side. Their sales volume is kept more stable throughout the months because of the two related lines, for at the peak of the ice cream season, the candy sales may be less, and vice versa.

Now the company is in the process of building a new candy factory which will be ready for occupancy sometime this Summer and early Fall. This will provide greater volume for next Fall and Winter.

NO CANDY CLINIC THIS MONTH!

Our Candy Clinic Superintendent has been enjoying Florida sunshine this month, but promises to make up for lost time. The material originally scheduled for the April issue will appear in May instead.

• **The U. S. Department of Agriculture** has recently announced the release of 3½ million pounds of dried whole eggs from a stock pile totaling 9½ million pounds, for donation to eligible U. S. private welfare organizations for distribution to needy persons abroad. These eggs are part of the stocks acquired by the Commodity Credit Corp. during the 1950 price support operations.

Section 416 of the Agricultural Act of 1949 authorizes donation of surplus CCC stock for relief distribution abroad, if such stocks are considered more than adequate to meet requests from eligible recipients in this country.

The agencies receiving the eggs are required to pay shipping and handling costs from the storage points, and agree to distribute them only to those people termed eligible under approved program outlets.

Agencies interested in acquiring dried eggs for distribution may write to the Food Distribution Branch, Production and Marketing Administration, U. S. Department of Agriculture, Washington 25, D. C.

Shelf-Life of Butter Creams Lengthened by the use of Glycerine

A recent bulletin published by Glycerine Information Service quotes Report No. 24—Progress in Candy Research, made by NCA. The research work referred to was conducted under the joint sponsorship of the Department of Agriculture and NCA, and pointed out the effectiveness of the use of glycerine in suppressing free fatty acid formation in butter creams.

Many materials were tested during the research, but glycerine was the only one that gave any indication of suppressing free fatty acid formation. After 8 weeks, creams thus treated showed 0.5 per cent free fatty acid value as compared to 1 per cent for controls. Tests on butter samples stored at 86° F. showed acceptable shelf-life prolonged from 9 weeks to 14 weeks with 1 per cent glycerine, and 2 per cent glycerine gave indication of keeping longer.

• **A. S. Jaffe Company** has just had what they term "a year well spent." They base their claim on the satisfied, enthusiastic consumer acceptance of the new candy bar—Annabelle's Rocky Road. The bar is described as a new combination of confectionery favorites, a fluffy center, made with fresh eggs, with a center layer of milk chocolate, topped with toasted cashews, and dipped in milk chocolate. The Jaffe Company has thoroughly tested the marketability of this "all-weather" candy bar all along the Pacific Coast. And they are now ready to launch a newspaper and TV advertising campaign throughout the area.

• **M/C Apologizes** to the Empire Box Corporation. Mr. Herbert D. Walton has been appointed as Sales Manager of the Chicago Office; and Mr. Stanley Hurwitch has joined the Sales Staff in the Garfield, New Jersey, office.

The MANUFACTURING CONFECTIONER'S Clearing House

MACHINERY FOR SALE

MUST BE MOVED IMMEDIATELY: National Equipment Steel Mogul complete with Currie Loader and Currie Stacker. Still set up in operating position. Can be inspected. Box No. 428 **The MANUFACTURING CONFECTIONER.**

FOR SALE: 18—38" Revolving Pans with and without coils. In fine condition. Box No. 432, **The MANUFACTURING CONFECTIONER.**

FOR SALE: Racine Duplex sucker machine, 1 set American Mix rollers, 1 set Duplex Sucker rollers; Revolving Pan size 38. Model A. Brand new; Thomas Mills after-dinner mint machine; complete; Thomas Mills lemon drop machine with 3 sets rolls; J. T. Hohberger No. 152 cut rock machine. Also 200# MS—3 Sylvania cellophane, 3 in. wide at 48c lb. For bargain prices and detailed information write Box No. 424, **The MANUFACTURING CONFECTIONER.**

MACHINERY FOR SALE: DUBIN FIRE MIXER No. 5 used on 6 months $450.00 also 5 ft. F. & B. Dayton Cream beater with 5 H.P. Single phase motor $750.00 both machines good as new. National Confectioners Machinery Co., 108 E. 2nd St., Cincinnati, Ohio.

FOR SALE: U. S. Automatic Box Co. 4 in. rotary feed box machine. Serial No. 657280. 1½ h.p. motor, 45 to 63 units per min. 15½ x 9½ x 2¾ max. carton. Practically new, excellent condition. Product change requires liquidation. Reasonable. Box No. 425, **The MANUFACTURING CONFECTIONER.**

FOR SALE: FA Machine, Pkg. Mach. Co. Serial No. 17052. ¾ h.p. motor. 40 to 100 units per min. 12 x 5⅜ x 3½ max. carton. Practically new, excellent cond. Product change requires liquidation. Reasonable. Box No. 426, **The MANUFACTURING CONFECTIONER.**

FOR SALE: A NUMBER OF ALMOST BRAND NEW PACKAGE MACHINERY DF TYPE BAR WRAPPING MACHINES WITH ROLL CARD FEED ATTACHMENTS. BOX NO. 327 THE MANUFACTURING CONFECTIONER.

EQUIPMENT FOR SALE:

10 In. SMITH COATING MACHINE, refrigerated Tunnel, electric heated, thermostat control. 150 Lb. Chocolate Melter, Electric heated, thermostat control. .50 lb. chocolate dipping tank, electric heated, thermostat control, 30 x 72 MILLS steel cooling slab, bars & stand FRIEND HAND ROLL machine—Laboratory Model—5 Dies. MILLS MONITOR NOUGAT cutting machine, CENTURY Mixer 20 & 30 quarts, motorized changeable belt cutting machine, 3 belts, MILLS motorized drop frame —10 sets of rolls, 4 Ft. Cream Beater with Motor. 3 ft. Cream beater with motor. All in GOOD condition. Hahn's Candies, 334 No. 4th St., Reading, Penn.

MACHINERY FOR SALE

MACHINERY FOR SALE

Simplex Gas Fire and Steam Cookers.
32" Greer and National Enrobers.
Complete 16" Enrober lines.
New Englander Friend Machine.
N.E. Mogul and Bausman Starch Machie.
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Forgrove 42-C and D. F. Bar Wrapper.
Hayssen Wrapper—Ideal Caramel Wrapper.

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152 West 42 Street New York 36, N. Y.

FOR SALE: National Equipment 34" Peanut Cluster Enrober with special cluster feeder, cooling tunnel and turn tables. Available at a bargain price. Box No. 429 **The MANUFACTURING CONFECTIONER.**

FOR SALE
COCOA BUTTER DEPARTMENT ONLY DISCONTINUED

Battery of 6 Carver 5-pot fully automatic Presses with automatic filling and automatic ejecting for the most economical operation.
4—Lehman and National Equipment 36" Triple Mills with carborundum stones.
Lehmann Cocoa Powder Outfit complete with Breaker, Pulverizer and Raymond Wind Sifter
2—Bausman Liquor Mills
1—Jabez Burns continuous Thermalo Cocoa Bean Roasters.

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Write for prices and further details.
Box No. 422 **The MANUFACTURING CONFECTIONER.**

FOR SALE: Werner Automatic Ball Machine Savage large A.D. mint cutter. Racine Model M. Die Pop. Simplex gas Vacuum cooker. Box No. 124 The **MANUFACTURING CONFECTIONER.**

MACHINERY WANTED

MACHINERY WANTED: SIMPLEX 2-Way Tilting STEAM VACUUM UNIT. PLEASE SEND BEST PRICE. Box No. 423, **The MANUFACTURING CONFECTIONER.**

SALES REPRESENTATIVES

LINES WANTED: Broker covering Pennsylvania excluding Philadelphia, open for line or specialty items with volume sales potential. Call on jobbers, chains, super markets and vendors. Over 25 years experience, large personal following with trade. Box No. 325, **The MANUFACTURING CONFECTIONER.**

POSITION WANTED: Eleven years experience in candy business. Acquainted with jobbers in Minnesota, No. & So. Dakota. Presently employed, desires to represent known candy manufacturers in Northwest area. Box No. 433, **The MANUFACTURING CONFECTIONER.**

HELP WANTED

HELP WANTED: Production Manager—Candy Foreman. Excellent opportunity for top-notch man to work for high class confectionery manufacturer operating a chain of retail stores in the New York area. Must have thorough experience in all phases of candy work, also ability to supervise sizeable personnel. Should understand all modern methods and equipment and be able to increase productivity without impairing quality.

Unlimited opportunities for the right man. Please write stating age, experience, and salary required to Box No. 427, **The MANUFACTURING CONFECTIONER.** All information will be kept in strictest confidence.

HELP WANTED: Production candy maker under 40 years of age with general experience. Capable of assuming complete responsibility for small plant long established in Los Angeles. Production confined to bar goods. With or without investment. Owner wishes to retire. Box No. 321, **The MANUFACTURING CONFECTIONER.**

POSITION WANTED

POSITION WANTED: As Superintendent or assistant to Plant Manager. Broad experience in the manufacture of hard candy and cough drops including production and plant organization. Familiar with principles of all hard candy machinery. Employed at present. Can furnish excellent reference. Box No. 421, **The MANUFACTURING CONFECTIONER.**

BUSINESS FOR SALE

BUSINESS FOR SALE: Candy Factory in Buffalo, New York. Fully equipped for full line of packaged chocolates including hand rolls, caramels, cast creams, hard candies and chips. Daily capacity over 8,000 lbs. Excellent building. Trained personnel available. Saperston Real Estate Co., Genesee Bldg., Buffalo 2, New York.

FOR SALE: Candy Factory, medium sized. Old established, well-equipped. Full information on request. Write Matzger Chocolate Co., 780 Harrison St. San Francisco, California.

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Confectionately Yours

White tie and tails were no handicap to a recent candy store burglar who was arrested by the police with three other young men as they were attempting to rob a Bronx candy store. The young man had just been a best man at a wedding, and hadn't bothered to change his attire before venturing out into his life of crime. Rather a conspicuous beginning!

• • •

The pros and cons of gum chewing were recently discussed by an Eastern inquiring reporter. Interestingly enough the two ladies interviewed expressed annoyance at seeing people vigorously chewing gum in public, making faces, grimacing, etc., but the one man on the panel said he was hardly ever conscious of other people's gum chewing habits.

All three agreed that claims of the manufacturers of the benefits of gum chewing had merit, and it was suggested that the manufacturer go a step farther and try to educate the public in the fine art of proper and polite chewing habits.

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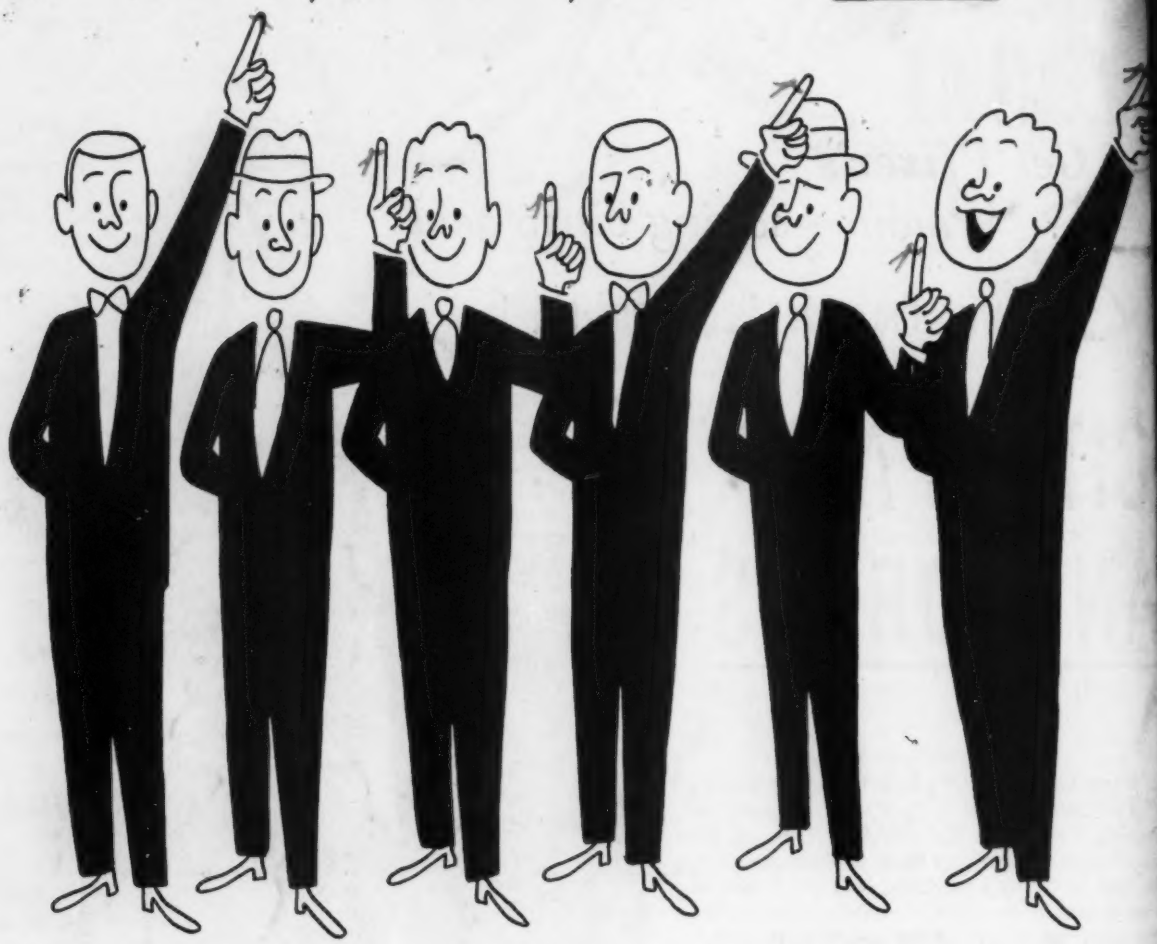

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